

Section 3: Affected Environment and Environmental Consequences

3.1 Introduction

This section presents the analysis topics included in the Channel Islands Telecommunications Project IS/EA. Topics were selected based on federal and state laws and regulations, Executive Orders, NPS Management Policies, and concerns expressed by the public, NPS staff, or other agencies during scoping and comment periods. Twelve resource topics are discussed in detail in this section. This section also provides a discussion of six topics that were dismissed from further analysis.

To conduct an environmental analysis under CEQA and NEPA, the “baseline” or “affected environment” must first be described. This section provides information on the existing natural, cultural, and social conditions relevant to the proposed project. The information provided on existing conditions forms the basis for considering the potential impacts or environmental consequences of the proposed project. An analysis of impacts within each resource area is provided, as are any mitigation measures, if needed, starting with Section 3.7.1. A discussion of cumulative impacts of the project for each resource topic is also provided.

3.1.1 CUMULATIVE IMPACTS

Both CEQA and NEPA require a cumulative impact analysis for all environmental documents. The Council on Environmental Quality (CEQ) describes a cumulative impact as follows (Regulation 1508.7):

A “cumulative impact” is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

The cumulative projects addressed in this analysis include past projects and present projects, as well as any planning or development activity currently being implemented or planned for implementation in the reasonably foreseeable future. Cumulative projects are evaluated in conjunction with the impacts of an alternative to determine if they have any additive effects on a particular resource. Because most of the cumulative projects are in the early planning stages, the evaluation of cumulative impacts was based on a general description of the past, present, or reasonably foreseeable future project. Appendix B contains the list of cumulative projects included in the cumulative impacts analysis.

3.1.2 IMPAIRMENT

Impairment is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values. The need to analyze and disclose impairment impacts originates from the NPS Organic Act (1916). The Organic Act established NPS with a mandate “to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations” (USC 1916).

An impact would be less likely to constitute impairment if it is an unavoidable result, which cannot reasonably be further mitigated, of a project necessary to preserve or restore the integrity of park resources or values (NPS 2000). An impact would be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park
- Key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park
- Identified as a goal in the park’s General Management Plan or other relevant NPS planning documents

The evaluation of impairment of park resources is based on the type and intensity of impacts and the types of resources affected. Overall, beneficial impacts would not constitute impairment. With respect to the intensity of impacts, negligible and minor adverse impacts are not of sufficient magnitude to constitute impairment. Moderate and major adverse impacts may constitute impairment but do not automatically do so. Rather, these impacts must be analyzed with respect to the three bulleted criteria above. Impairment is generally considered for geologic, hydrologic, biological, cultural, and scenic resources. Impairment pertains only to NPS and is addressed in the conclusion section of each applicable impact topic for each alternative.

3.2 Resource Topics Considered in this Initial Study/ Environmental Assessment

3.2.1 NATURAL RESOURCES

The federal and state ESAs (and associated legislation), Clean Water Acts, Clean Air Acts, and NEPA require that the effects of a proposed project on natural resources be examined. The project areas have significant natural resources, such as habitat, that could support special-status species, which could be affected by implementation of the proposed project. Analysis was performed for the following natural resource topics:

- Hydrology and Water Quality
- Vegetation
- Wildlife

- Rare, Threatened, and Endangered Species
- Air Quality and Greenhouse Gases
- Noise

3.2.2 CULTURAL RESOURCES

The NHPA, the Archeological Resources Protection Act, the Native American Graves Protection and Repatriation Act (NAGPRA), the American Indian Religious Freedom Act, and NEPA require that the effects of any federal undertaking on cultural resources be examined. CEQA requires that any state undertaking on cultural resources be examined.

3.2.3 SOCIAL RESOURCES

The analysis of social resources examines the effects of the proposed project on the social environment in Channel Islands National Park. The park's scenic resources are a major component of the visitor's experience. Conserving the scenery is a crucial component of the NPS Organic Act of 1916 and the park's enabling legislation. Stewardship of the Channel Islands National Park requires consideration of two integrated purposes: to preserve the park's unique natural and cultural resources and scenic beauty, and to make these resources available to visitors for study, enjoyment, and recreation. The proposed project has the potential to affect the type and quality of recreational uses in and around the immediate vicinity of the project sites. The proposed upgrades to the Channel Islands Telecommunication Project could affect various aspects of the existing environment that relate primarily to how humans perceive and experience their environment.

Analysis was performed for the following social resource topics:

- Land Use, Visitor Experience, and Recreation
- Visual/Scenic Resources
- Transportation

3.2.4 CEQA-SPECIFIC TOPICS

The following resource areas are included in the CEQA Checklist, and have not been combined with other NEPA resources areas. These resource areas are therefore addressed separately:

- Public Services, Utilities, and Service Systems
- Hazards and Hazardous Materials

3.3 Impact Topics Dismissed from Further Analysis

The following environmental topics were found to not be impacted by the proposed project and were eliminated from further analysis: socioeconomics; population and housing; environmental justice; agricultural and forest resources; mineral resources; and geology, geohazards, and soils. A brief discussion as to why these topics would not be impacted by the project is provided here.

3.3.1 SOCIOECONOMICS

The proposed project would not have any measurable effects on the regional or gateway community economies, and would not result in changes in visitor attendance or visitor spending patterns. This resource topic has been dismissed from further analysis.

3.3.2 POPULATION AND HOUSING

The proposed project would not impact the work, recreation, or social interactions of island personnel or staff. Installation and operation of the proposed project would not be at a scale that is large enough to impact housing. The project would not directly or indirectly boost population growth or displace existing housing. This resource topic has been dismissed from further analysis.

3.3.3 ENVIRONMENTAL JUSTICE

No aspect of the proposed project would result in disproportionately high and adverse human health or environmental effects on minority or low-income populations. None of the project alternatives would change current management direction with respect to housing policies in Channel Islands National Park. The proposed project would not result in the destruction or disruption of community cohesion and economic vitality, displacement of public and private facilities and services, increased traffic congestion, and/or exclusion or separation of minority or low-income populations from the broader community. This resource topic has been dismissed from further analysis.

3.3.4 AGRICULTURAL AND FOREST RESOURCES

No current agricultural practices are being conducted on the islands and, therefore, no impacts would occur to agricultural lands or uses. NPS interprets historical land use practices for the visiting public. The alternatives would not interfere with this ongoing interpretive program. This resource topic has been dismissed from further analysis.

3.3.5 MINERAL RESOURCES

The proposed project involves a negligible amount of soil disturbance (limited shallow excavation for telecommunication equipment foundations and footings). The ground-disturbing activities would occur in areas that are not currently used for mineral extraction. There would be no impact on mineral resource availability. This resource topic has been dismissed from further analysis.

3.3.6 GEOLOGY, GEOHAZARDS, AND SOILS

The proposed project would not impact local geology, geohazards, or soils. There would be no induced seismicity or additional exposure of people or structures to seismic activity and related landslides as a result of the proposed project. There would be a potential for a less than significant impact from soil erosion because a negligible amount of soil disturbance (limited shallow excavation for telecommunication equipment foundations and footings) on previously disturbed soil would occur. Impacts from soil erosion are analyzed in Section 3.7.1: Hydrology and Water Quality. Project locations are not located on expansive soil, unstable geologic units or soil, or near unique geologic features. This resource topic has been dismissed from further analysis.

3.4 Regional Setting

The Channel Islands National Park consists of five islands formed from ridges of the continental shelf off the coast of southern California, south of Point Conception and west of Ventura and Los Angeles Counties. The islands vary considerably in size, distance from each other, and distance from the mainland, and support myriad endemic wildlife and migratory birds due to their diverse topography and isolation from the mainland. Vegetation communities include coastal sage scrub and grassland, as well as oak woodlands and pine stands. The climate of the Channel Islands is similar to that of the southern California coast, with moderate year-round temperatures. Fog and overcast weather is common and precipitation occurs primarily between November and April.

3.5 Local Setting

The proposed project would be installed at various locations on four of the five islands that comprise the Channel Islands National Park. Proposed project locations include one location on Santa Barbara Island, two locations on San Miguel Island, five locations on Santa Cruz Island, and seven locations on Santa Rosa Island. All project locations are previously disturbed and subject to ongoing human presence. Project elements would be installed on existing buildings and structures at the project locations.

Santa Barbara Island is the smallest and most remote of the Channel Islands. The island is frequently encompassed by heavy fog and is characterized by steep cliffs and rolling grasslands. Santa Barbara Island relies on an average rainfall of 12 inches for its water requirements because it lacks a substantial groundwater aquifer.

San Miguel Island is the westernmost island in the Channel Islands National Park. The island is under the jurisdiction of the U.S. Navy, but is largely managed by NPS. The island is relatively flat and exposed to the harsh conditions of the open ocean. The island's coastline is characterized by rocks and is frequently enveloped in thick fog.

Santa Cruz Island is the largest of the islands within the Channel Islands National Park and also the most geographically diverse of all the islands due to its rocky mountainous areas, grasslands, coastal scrubland, forests, and small deserts. It has a Mediterranean climate and numerous watercourses, which support a variety of unique fauna and flora.

Santa Rosa Island is about 15 miles long and 10 miles wide and is characterized by rolling hills, deep canyons, a coastal lagoon, and beaches with sand dunes. It has abundant watercourses and springs and provides habitat to the western snowy plover.

3.5.1 NEPA THRESHOLDS

The DO-12 Handbook (NPS 2001) for NPS provide guidelines for implementing NEPA that consider both the regulations established by CEQ (40 CFR 1500 et seq.) and mandates specific to NPS. These guidelines for impact assessments include a discussion of the context, duration, intensity, type of impact, and timing (NPS 2000), as summarized below, and include direct, indirect, and cumulative effects.

Context

The context considers whether the impact would be local or regional. For the purpose of this analysis, local impacts would be those that occur within the immediate vicinity of the 15 sites that comprise the Channel Islands Telecommunication Project, unless otherwise noted.

Duration

The duration of an impact is noted as either short-term or long-term and defined in a range of years.

Intensity

Indicators of the intensity of an impact, whether it is negligible, minor, moderate, or major, are included in the impact analysis and are specifically defined in each topic area.

Type

The type of impact refers to whether the effect is considered beneficial or adverse. Beneficial impacts would improve resource conditions. Adverse impacts would deplete or negatively alter resources. Mitigating actions would be taken during implementation of the proposed project. The guidelines for impact assessments will be applied to all NEPA project sites. In addition, the proposed project will be evaluated for consistency with applicable general management policies of NPS. The impact analysis is based on a comparison of current conditions to evaluate the magnitude of proposed changes and to assess the environmental effects of these changes.

3.5.2 CEQA SIGNIFICANCE CRITERIA

Significance criteria are identified under each resource area section.

3.6 Existing Zoning and General Plans

The islands are managed by the federal government and are operated and maintained by NPS as the Channel Islands National Park. San Miguel Island (locations 3 and 4) is under the jurisdiction of the U.S. Navy, but is largely operated and maintained by NPS. The San Miguel Island Marine Mammal Research Facility (location 4) is managed and operated by NOAA, and the use of this facility is shared with NPS. A portion of Santa Cruz Island is owned and managed by The Nature Conservancy; no project elements are proposed in this portion of Santa Cruz Island. Management zoning is used by NPS to prescribe areas where certain desired conditions are to be achieved and where certain uses may be provided. These management zoning designations are outlined in Section 3.9.1: Land Use, Visitor Use, and Recreation. Navigational aids and weather stations may be permitted in any management zone under a special use permit. Separate zone designations for these minimal facilities are not required (NPS 1985).

Anacapa Island lies within the boundaries of Ventura County, and the other four islands are within the boundaries of Santa Barbara County. Neither county has any jurisdiction over the five islands, however, because the federal government through NPS makes all regulations and policy decisions regarding these islands. Therefore, there are no county zoning ordinances or general plan regulations that are applicable to the islands within the Channel Islands National Park.

3.7 Natural Resources

3.7.1 HYDROLOGY AND WATER QUALITY

This section describes the existing climate and hydrology found at the Channel Islands National Park and evaluates the potential impacts on hydrology and water quality from the proposed project.

Affected Environment

This section describes the existing hydrology and water quality of the 15 proposed project locations. Project locations that are subject to flooding are described in more detail.

Climate

The Channel Islands have a Mediterranean climate that is characterized by warm, dry summers and cool, moist winters. Fog is common throughout the year (National Resource Conservation Service [NRCS] 2007). Precipitation and other weather characteristics for each island are included in Table 3.7-1 below.

Surface Water

Freshwater resources on the Channel Islands are limited to San Miguel, Santa Cruz, and Santa Rosa Islands. Numerous surface drainages on each of these three islands flow to the Pacific Ocean. There are no fresh surface water sources on Santa Barbara Island, except for a few minor seeps (NPS 1985).

Island	Average Annual Precipitation	Other Notes
Santa Barbara Island	6 to 10 inches	None
San Miguel Island	24 to 34 inches	Foggiest and windiest island Frost is rare
Santa Cruz Island	13 to 18 inches	Fog is common on the coast but less common in the valley Occasional frost
Santa Rosa Island	21 to 31 inches	Frost occurs, though not often, on high peaks

SOURCE: NRCS 2007

San Miguel Island has two main drainages (Nidever and Willow Canyons), a dry lake bed that occasionally floods, one small vernal pool, and some small coastal seeps along the Simonton Beach area.

The largest watershed on Santa Cruz Island is the Central Valley, which runs east-west and drains at the base of the isthmus at Prisoners Harbor. The highly dissected nature and steep slopes of the

subdrainages from the watershed on the island are subject to slope failures and have led to sedimentation in the valleys. Most drainages, including the largest in the Central Valley watershed, have intermittent flow (stream flow alternates being above and below ground). There are persistent wetlands in Canada del Puerto (at Prisoners Harbor), Scorpion Canyon (landward of Scorpion Bay), and Smugglers Canyon. Dredging and grading of stream beds and filling of wetlands during the ranching years occurred at wetlands near Scorpion Bay and Prisoners Harbor.

Santa Rosa Island is characterized by numerous canyons with streams, creeks, or washes. The major drainage on the island is from a single central highland. Brackish coastal lagoons occur in six canyons on the island: Old Ranch Canyon, Old Ranch House Canyon, Water Canyon, La Jolla Vieja Canyon, Arlington Canyon, and Canada Telecote (Engle 2006).

Groundwater

Groundwater sources the domestic water supply for Santa Cruz, Santa Rosa, and San Miguel Islands (NRCS 2007). There are no aquifers on Santa Barbara Island and drinking water for this island is delivered periodically via NPS boats (NPS 1985).

Flooding

The generally steep drainage terrain, intensity of rainfall, and thin soil cover result in a very short lag time (several hours) from rainfall to runoff on the islands and may result in localized flooding at stream outlets during and after heavy rains (Engle 2006; NRCS 2007). Santa Cruz Island is susceptible to flooding due to the highly dissected nature of two major drainages, the Scorpion and Smugglers drainages, which have V-shaped valley bottoms that are particularly efficient at delivering sediment. There are natural runoff channels in each valley; however, high tides and storm berms can impede stormwater flow to the ocean (NPS 1985).

Project locations 5 and 6 are near the natural channel in the Scorpion drainage, which has historically been altered by dredging, fill, and channelization. Its outlet is frequently blocked by sediment, which is exasperated by the narrowing of the channel as it reaches the ocean. This type of drainage resulted in flash flood events such as the Scorpion Flood in December 1997. This flood, interpreted as a 100-year flood event, moved buildings and transported materials out to sea. Removal of feral sheep from the island and subsequent revegetation will likely reduce the impact and intensity of flooding in the future (Williams, pers. comm. 2009). All structures in Scorpion Valley are located on a floodplain, and flood waters up to 2 feet deep in some ranch structures have been recorded (Williams, pers. comm. 2009; NPS 1985). The wider, upgradient portions of Scorpion Valley do not appear to present any flood hazards (NPS 1985).

Project location 7, Prisoners Harbor on Santa Cruz Island, is also subject to flooding (Williams pers. comm. 2009). The winter storms of 1961-1962 caused damage to Navy Road and the historical adobe at Prisoners Harbor. A concrete apron was subsequently installed across the creek to the base of Navy Road at the historical adobe. A berm, probably built around the same time as the apron, also contains higher magnitude flows in the channel, including flows approaching the 100-year flood level (NPS 2009). Water can breach the channel at the Navy Road crossing during periods of high flow. After breaching the channel, water generally flows to the existing warehouse

(west of the creek) and corral (north of the creek). This flood pattern occurred during heavy precipitation in 1997-1998. The water cut channels into the pasture during this event (NPS 2009).

Project locations 9 and 10 near Smugglers Cove are protected from flooding by a stone retaining wall. In addition, the channel nearby is broad, widens as it reaches the ocean, and has sufficient capacity to carry a large volume of water flow (NPS 1985). Further protection measures were not required at the time the Channel Islands National Park General Management Plan was written (1985).

Tsunamis

The Channel Islands are subject to tsunami hazards due to their proximity to submarine faults and unstable basin slopes, primarily from the Channel Islands Thrust system and the Santa Barbara Channel, respectively. A study was completed to analyze the potential onshore runup of a tsunami caused by mudslides on offshore slopes in the Santa Barbara Channel. A larger mudflow on offshore slopes could cause a runup of up to 67 feet along some areas of the California coast, though the range was more typically between 32 and 50 feet (Borrero *et al.* 2000). These data are for the southern California coast; however, it can be inferred that the Channel Islands could also be subject to tsunamis. There have been two tsunamis that caused runup on the Channel Islands of greater than 6 feet since the 1800s: the Santa Barbara tsunami in 1812 and the Point Arguello-Lompoc tsunami in 1927 (Borrero *et al.* 2000).

Water Quality

Most water quality impacts from existing infrastructure appear to result from previous grazing activities, roads, and (on San Miguel and Santa Barbara Islands only) leach fields. Erosion and sedimentation are a concern for surface water quality (NOAA 2008). Groundwater quality is not monitored at well sites except for bacterial levels (Engle 2006).

Water quality tests were conducted at various stream locations on Santa Cruz and Santa Rosa Islands from 1993 to 2005. Water quality changed dramatically with the removal of grazing animals. For example, water quality standards for turbidity, microbial content, nutrients, and pH frequently exceeded water quality standards at three water sample collection streams on Santa Rosa Island from October 1993 to May 1998. The removal of cattle in 1998 and the issuance of Cleanup and Abatement Order 95-064 by the Central Coast Regional Water Quality Control Board (RWQCB) in 1995 resulted in the reduction of non-point source pollution from grazing and road management practices on Santa Rosa Island. Post-removal, Santa Rosa Island's total suspended sediment and total nitrogen were reduced up to 100 percent at sample locations, total phosphorous was no longer detected, and bacteria concentrations were significantly diminished (less than 70 percent of pre-removal levels) (Engle 2006). Since 2000, water samples from certain streams on Santa Cruz and Santa Rosa Islands exceeded U.S. Environmental Protection Agency (EPA) and RWQCB water quality standards for turbidity and pH. Water samples collected from Lobo Canyon on Santa Rosa Island exceeded total nitrogen levels in 2002, but were in compliance in 2005 (Engle 2006).

Regulatory Setting

Federal Regulations

Clean Water Act (33 U.S.C., Section 1251 et seq.)

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. Under the CWA, EPA has implemented pollution control programs such as setting wastewater standards and water quality standards for all contaminants in surface waters. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges.

Channel Islands National Park General Management Plan

The Channel Islands National Park General Management Plan of 1985 provides guidance regarding the management of natural and cultural resources and the level of development required to support visitor and management activities (NPS 1985). The relevant regulations from the management plan are outlined below:

- Eliminate all sources of park-originated water pollution from the islands and cooperate with and review proposals for neighboring development to keep discharges at a minimum;
- Maintain groundwater reserves on San Miguel Island at a level that will allow natural flow to maintain terrestrial habitat and prohibit intrusion of salt water; and
- Maintain natural drainage patterns on Anacapa and Santa Barbara Islands.

State and Local Regulations

Porter-Cologne Water Quality Control Act (California Water Code, Section 13020)

Under the authority of the Porter-Cologne Act and federal CWA, RWQCBs act as regional agencies for the State Water Resources Control Board and are responsible for regional enforcement of water quality laws and coordination of water quality control activities.

Environmental Consequences

Thresholds of Significance

The project could have a significant impact on hydrology and water quality if the project would:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality
- Substantially deplete groundwater, surface water, or other water supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level
- Substantially alter the existing drainage pattern of the site or vicinity, including through alteration of the course of a stream or river, in a manner that would result in substantial erosion, siltation, or flooding on or off site

- Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff
- Place housing or structures within a 100-year flood hazard area, which would impede or redirect flood flows
- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam
- Be at risk of inundation by seiche, tsunami, or mudflow

Alternative 1 (No Project Alternative)

The No Project *Alternative* maintains the status quo at all 15 of the proposed telecommunication facility sites. This alternative provides a basis to compare the preferred alternative, to evaluate the magnitude of proposed changes, and to measure the environmental effects of those changes. Under this alternative, all telecommunication sites would remain in their current state, and no telecommunication infrastructure would be installed. No new impacts to hydrology or water quality would be associated with the No Project Alternative.

Alternative 2 (Preferred Alternative)

Water Quality

Installation. Vehicles involved with installation activities, such as trucks used to transport crews and equipment, may deposit small amounts of natural and synthetic fuels onto soils through equipment failure or normal operations; however, an SPCC plan would be prepared and vehicles checked frequently for leaks such that the likelihood of a substantial leak that could impact water quality would occur would be minimal. No off-road travel is proposed as part of the project and all vehicle travel would be restricted to roads currently designated for vehicle use. Road surfaces vary throughout the park and the proposed project would require use of some unpaved roads; however, no hazardous materials (other than minor amounts of fuels) would be used as part of the proposed project.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

Operation and Maintenance. Project operation would have no impact on water quality or waste discharge because all installed equipment is stationary and autonomous and does not require or expel water or hazardous products. Maintenance activities would be on an as-needed basis and would have a less than significant impact on water quality.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

Water Supply

Installation. The proposed project would not involve the use of potable groundwater or surface water supply sources in substantial quantities. Water from the islands would only be used for sanitary purposes, the mixing of concrete for footings, and other minor, ancillary uses (e.g.,

washing vehicles), and all drinking water would be brought to the site by the installation crew from mainland sources. Where necessary, water for the mixing of concrete would also be brought to the site by the installation crew from mainland sources. The project would not substantially deplete groundwater, surface water, or other water supplies or interfere substantially with groundwater recharge; therefore, the impact on water supply would be minor, short-term, and less than significant.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

Operation and Maintenance. Operation would have no impact on water supply because the installed equipment does not require or expel water. Maintenance activities would require a minimal amount of water (approximately 10 gallons per project location) for the annual cleaning of solar panels. This water would either be brought to each project location by a maintenance crew or local water sources would be used. Maintenance activities would have a similar impact as described for installation, and would be less than significant, local, short-term, and minor.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

Surface Water

Installation. Drainage alterations could occur due to soil compaction and soil excavation from vehicle or foot traffic on unpaved roads during equipment installation activities; however, all vehicle travel would occur only on existing roads, which are already subject to vehicle travel, and locations not accessible by road would be reached by a crew on foot on established trails, which would not cause substantial soil compaction. There would be no new impacts to drainage from vehicle travel or foot traffic. Limited excavation activities for the installation of foundations and footings would occur on previously disturbed soil near existing buildings and would have a less than significant impact on drainage. The proposed project would not alter the course of a stream or river or contribute to substantial erosion, siltation, or flooding on or off site. There would be a minor addition of runoff water generated from activities such as washing vehicles.

- CEQA: Less than significant impact.
- NEPA: Local, long-term, and minor impact.

Operation and Maintenance. Operation would have no impact on surface water because the installed equipment does not require or expel water. Maintenance activities would require a minimal amount of water (approximately 10 gallons per project location) for the annual cleaning of solar panels. This water would either be brought to each project location by a maintenance crew or local water sources would be used. Maintenance activities would have a similar impact as described for installation.

- CEQA: Less than significant impact.
- NEPA: Local, long-term, and minor impact.

Flooding

Installation. There is a risk of flooding at the project locations in the Scorpion (location 6), Prisoners Harbor (location 7), and Smugglers drainages (locations 9 and 10). The likelihood of a 100-year flooding event during the installation process is very minimal and, therefore, less than significant.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

Operation and Maintenance. Equipment at locations 6, 7, 9, and 10 could be exposed to flooding over the life of the project. Equipment installed at locations within the Scorpion, Prisoners Harbor, and Smugglers drainages (locations 6, 7, 9, and 10) would be placed above historical flood levels in consultation with Channel Islands NPS staff. Plans would be submitted to NPS showing the orientation of the equipment in relation to the floodplain for NPS review and approval. The proposed project would be installed on existing structures and would not involve the placement of new structures within a 100-year flood hazard area. Impacts would be localized, short-term, and less than significant.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

Tsunami

Installation. The Channel Islands thrust fault has the potential to cause the generation of a tsunami that could potentially affect the Channel Islands. A study completed to analyze the potential onshore runup of a tsunami suggests a maximum runup of 67 feet along some areas of the California coast, with a more typical runup of between 32 and 50 feet (Borrero *et al.* 2000). There are four project locations that are at elevations of 67 feet or lower and only two locations that are at elevations of 50 feet or lower:

- Location 6: Santa Cruz Island Scorpion Ranch (42 feet above mean sea level [amsl])
- Location 7: Santa Cruz Island Prisoners Harbor Day Use Area (25 feet amsl)
- Location 9: Santa Cruz Island Smugglers Adobe (55 feet amsl)
- Location 11: Santa Rosa Island Main Ranch (54 feet amsl)

The likelihood of a tsunami occurring during the approximately four-month installation process is very minimal and, therefore, less than significant.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

Operation and Maintenance. A tsunami could potentially sweep the telecommunication equipment out to sea, severely damage equipment, or render the equipment unusable; however, the likelihood of a tsunami occurring (less likely than that of a flood), coupled with the minimal population that would be affected by loss of equipment, would make the impact less than significant. Additionally, all potentially affected locations listed above are relatively close to other

locations that would have telecommunication equipment. The proposed project also does not involve any changes that would result in a net increase in tsunami, seiche, or mudflow inundation at the Channel Islands. The impact would be local, short-term, minor, and would be less than significant.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

Impairment

There would be no hydrology or water quality impacts associated with Alternative 1. Impacts to hydrology and water quality associated with the proposed project (Alternative 2) would be local, short-term, and minor.

Mitigation Measures

No mitigation measures are required for the proposed project because installation, operation, and maintenance of the proposed telecommunication facilities would have a less than significant impact on hydrology and water quality without the need for mitigation.

Cumulative Impacts

Potential cumulative effects to hydrology and water quality are based on the analysis of projects in the Channel Islands Telecommunication Project area, presented in Appendix B. Other projects and plans proposed within the project area would be subject to evaluation of potential impacts to hydrology and water quality impacts and, where appropriate, to the implementation of Best Management Practices and project-specific mitigation measures and adherence to management practices. Hydrology and water quality impacts from the proposed project would be at a small and localized level. No other projects are proposed in the vicinity of the proposed project sites; therefore, there is no potential for a cumulative impact.

Conclusion Statement

Impacts to hydrology and water quality are summarized below.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

3.7.2 VEGETATION

This section describes the existing vegetation resources found at each of the proposed project locations on the Channel Islands National Park and evaluates the potential impacts on vegetation resources from the proposed project. The analysis focuses on common vegetation resources and impact evaluation thresholds that do not address sensitive resources. Analysis of the proposed project's effects on sensitive vegetation resources is addressed in Section 3.7.4 (Rare, Threatened, and Endangered Species).

Affected Environment

This section describes the existing vegetation at each of the proposed project locations. Project locations that support native vegetation or that include ground disturbance during project installation are described in more detail.

Vegetation Communities

General descriptions are provided below for the vegetation communities that are known to occur in the vicinity of the proposed project sites. Subsequent descriptions of each of the project locations refer back to the general discussion of vegetation communities.

California Annual Grassland Series

Annual grassland is present in the vicinity of most of the project areas. The annual grassland community is primarily composed of nonnative and native grasses and a variety of weed species. Grasses observed in this community include:

- Wild oats (*Avena fatua*)
- Italian ryegrass (*Lolium multiflorum*)
- Hedgehog dogtail grass (*Cynosurus echinatus*)
- Soft brome (*Bromus hordeaceus*)
- Ripgut brome (*B. diandrus*)
- California brome (*B. carinatus*)
- Meadow barley (*Hordeum brachantherum*)
- Hairgrass (*Aira caryophylla*)
- Purple needle grass (*Nassella pulchra*)
- Idaho fescue (*Festuca idahoensis*)

Other herbaceous species observed in this community include rose clover (*Trifolium hirtum*), sheep sorrel (*Rumex acetosella*), and narrow-leaved flax (*Linum bienne*) (Sawyer 1995).

Coast Live Oak Series

Coast live oak is a community of trees and shrubs with persistent broadleaf foliage that may or may not have an understory of grasses. The canopy is continuous, intermittent, or open. Species that may be present within this series on the Channel Islands National Park include coast live oak (*Quercus agrifolia*), chamise (*Adenostoma fasciculatum*), and Toyon (*Heteromeles arbutifolia*) (Sawyer 1995).

Coyote Brush Series

The coyote brush series is dominated by coyote brush (*Baccharis pilularis*) and may also include Santa Rosa Island sage (*Salvia brandegeei*) and island ceanothus (*Ceanothus arboreus*) (Sawyer 1995).

Iceplant Series

Red-flowered iceplant (*Malephora crocea*) is the sole or dominant herb in the ground canopy in the iceplant series. The red-flowered iceplant is a nonnative invasive species that replaces native species (Sawyer 1995).

Eucalyptus Series

Eucalyptus (*Eucalyptus globulus*) is the sole or dominant tree in the canopy in the eucalyptus series; few other species are present in the canopy or understory (Sawyer 1995).

Existing Vegetation

Location 1 – Santa Barbara Island Ranger Station

This site includes a ranger station office, a maintenance shop, and ground-mounted solar panels. The island's vegetation has been heavily impacted by human activities, including farming, and is currently dominated by nonnative vegetation. Vegetation surrounding the facilities is composed of California annual grassland series, including wild oats (*Avena fatua*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), and foxtail barley (*Hordeum murinum*). The dominant shrub at the site is the common native plant, giant coreopsis (*Coreopsis gigantea*).

Location 3 – San Miguel Island Ranger Station

This site includes an NPS office, residential accommodations, and a four-person research bunkhouse. A solar heating system is located on the roof of the ranger station. The building is isolated and experiences strong winds from the nearby shore. California annual grassland series surrounds the ranger station, but coverage is minimal and devoid of vegetation in places.

Location 4 – San Miguel Island Marine Mammal Research Facility

This site includes an office containing a research facility, a bunkhouse, and a tool shed located on top of a cliff, approximately 1,000 feet from shore. The Marine Mammal Research Facility is owned and operated by NOAA. The buildings have antennas and wind turbines, and intermittent wood fencing surrounds portions of the research facility. The area's natural terrain is dominated by California annual grassland and iceplant series.

Location 5 – Santa Cruz Island Scorpion Housing Area

This site is the main NPS facility on the east side of the island and includes a housing area and a nearby campground. The building cluster is located on a slope about 1,500 feet from shore. California annual grassland series surrounds the project area. The site lacks any large shrubs or trees.

Location 6 – Santa Cruz Island Scorpion Ranch

This project site includes a corral and maintenance area located approximately 500 feet west of the Scorpion Ranch building cluster. The corral and maintenance shed is located in a valley less than 1,500 feet from shore. The dominant vegetation type is California annual grassland series.

Location 7 – Santa Cruz Island Prisoners Harbor Day Use Area

This site includes a large wooden water landing deck. The deck is connected to the shore of the island, which contains a flat area with fencing, dirt roads, a small building, and some picnic tables. Vegetation surrounding the area is dominated by California annual grassland series and eucalyptus series. The closest eucalyptus trees are located between 75 and 300 feet from the proposed project site. Nonnative plants noted in the area include invasive forbs and fennel (*Foeniculum vulgare*).

Location 9 – Santa Cruz Island Smugglers Adobe

This site includes a large housing facility and two sheds. This site is occasionally used as a spike camp and is not regularly staffed. The facilities are located on a shallow slope approximately 1,000 feet from shore. Vegetation communities surrounding the area are California annual grassland series and eucalyptus series. California fan palm stands, coast prickly pear, and non-sensitive native shrubs are located within 70 feet of the proposed project site.

Location 10 – Santa Cruz Island Smugglers Kiosk

This site contains a bulletin kiosk. Surrounding vegetation communities include California annual grassland series and eucalyptus series. Eucalyptus trees are located within 60 feet of the proposed project site.

Location 11 – Santa Rosa Island Main Ranch

This site includes a ranch building surrounded by wood fencing located on flat terrain less than 1,500 feet from shore with rolling hills in the background. Vegetation communities include California annual grassland series, iceplant series, coyote brush series, and eucalyptus series. Eucalyptus trees are located within 50 feet of the proposed project site.

Location 12 – Santa Rosa Island Campground

This site includes approximately one dozen campground shelters, which are small wooden sheds that provide campers with protection from the elements. The campground is located in a small valley about 0.5 mile from shore. The vegetation communities located at the project site include California annual grassland series and coyote scrub series. No large trees are found at the proposed project site, but several non-sensitive shrubs are located within 50 to 100 feet.

Location 14 – Santa Rosa Island Maintenance Office

This site contains the maintenance facility for the island, as well as the garage for the island's fire engine and a stucco shed located near the maintenance office. The site is located over 1 mile from shore and is surrounded by natural terrain. Vegetation is composed of California annual grassland series, which is maintained by landscaping.

Location 15 – Santa Rosa Island Johnson's Lee

This site consists of the historical Johnson's Lee building, which has an adjacent shed, and is located about 1,000 feet from shore on a gradual slope. The dominant vegetation communities at the proposed project site are the California annual grassland and coyote brush series.

Location 16 – Santa Rosa Island Housing

This site includes four buildings used for housing. Vegetation is composed of California annual grassland series. Existing vegetation is maintained by regular landscaping and trimming.

Location 17 – Santa Rosa Island Power Station

This site consists of two adjacent buildings located nearly 1,500 feet from shore on relatively flat terrain. The vegetation communities present include California annual grassland and coyote brush series. The project site is regularly mowed and landscaped. Non-sensitive species shrubs are located at the proposed project site.

Location 18 – Santa Rosa Island Ranch Residence

This site includes the ranch residence, a single-story residence located in a relatively flat portion of the island approximately 600 feet west of the shore. The vegetation communities present include California annual grassland and coyote brush series.

Regulatory Setting

Federal Regulations

Title 36 Code of Federal Regulations

The Channel Islands are unique for their isolation, which makes them a refuge for endemic species. To prevent the introduction of nonnative species per 36 CFR 2.1 (a) (2), the following high-risk vectors are prohibited to be transported or delivered to any island within the Channel Islands National Park, except as authorized by the Superintendent:

- Live or potted plants
- Soil
- Cut flowers
- Firewood or any wood with attached bark
- Corrugated boxes
- Tools or equipment with attached soil

These prohibitions help reduce the potential for introduction of nonnative species that could adversely affect many species and/or endanger island ecosystems.

State and Local Regulations

There are no applicable state or local laws, ordinances, or regulations pertaining to vegetation.

Environmental Consequences

Thresholds of Significance

The project could have a significant impact on vegetation if the project would:

- Have a substantial adverse effect on any wetland or riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFG or USFWS

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation ordinance or policy
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan

Significance criteria for sensitive vegetation (e.g., special-status species) are addressed in Section 3.7.4 (Rare, Threatened, and Endangered Species).

Alternative 1 (No Project Alternative)

The No Project Alternative maintains the status quo at all 15 of the proposed telecommunication facility sites. This alternative provides a basis to compare the preferred alternative, to evaluate the magnitude of proposed changes, and to measure the environmental effects of those changes. Under this alternative, all telecommunication sites would remain in their current state, and no telecommunication infrastructure would be installed. No new impacts to vegetation would be associated with the No Project Alternative.

Alternative 2 (Preferred Alternative)

Riparian Habitat and Plans

There is no identified riparian habitat at any of the 15 proposed project locations; therefore, this issue is not discussed further. There are no habitat conservation plans or local policies or ordinances protecting biological resources that are relevant to the proposed project; however, in light of the mission of NPS to promote and conserve the welfare of scenery and nature, impacts to vegetation at the project locations are discussed below.

Ground Disturbance

Installation. The proposed project would involve the installation and replacement/upgrade of telecommunication equipment at 15 locations on four of the five islands that comprise the Channel Islands National Park. Limited ground disturbance would occur at each site to install and upgrade the existing telecommunication equipment, and in all cases, the area of ground disturbance is either currently void of vegetation or only contains non-sensitive plant species. Upgraded equipment would be installed on or adjacent to existing structures.

Vegetation would not be actively removed during project installation, but some trampling of grassy vegetation may occur immediately surrounding the buildings. The areas immediately surrounding all of the buildings at these locations have been previously disturbed; therefore, installation activities would not adversely impact the vegetation communities near any of the 15 proposed project sites. The total area that would be disturbed during project installation at these project locations is very small, likely less than 0.1 acre total for all 15 sites, which is minimal and would not otherwise effect general vegetation population. All tools, equipment, and materials required for project installation would be staged on paved or cleared areas. Cleared areas may be covered with gravel or bare earth but, in all cases, would be fully disturbed and free of vegetation

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

Operation and Maintenance. Operation would have no impact on vegetation because all installed equipment is stationary and autonomous. The areas immediately surrounding all of the buildings at the project locations have been previously disturbed and all maintenance vehicle traffic would be on existing roadways; therefore, maintenance activities would have a less than significant impact on vegetation communities near any of the 15 proposed project sites.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

Invasive Species

Installation. The largest threat to the health and safety of the existing natural vegetation communities is the introduction of invasive species to the islands. All natural materials brought to the island are capable of introducing noxious weeds or invasive competitors capable of damaging the balance of island ecosystems. Materials brought to islands for the proposed project would be free of natural products such as soils, bark, plants, flowers, or seeds, per NPS regulations. Additional measures would be taken, as described in the Project Description, to further reduce the potential for spread of invasive species. These measures include using only native seed mixes for any post-ground disturbance revegetation, and ensuring that all construction equipment and telecommunication facilities are cleaned and free of invasive species prior to bringing these items into the Channel Islands National Park.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

Operation and Maintenance. Operation activities would have no impact on vegetation because all installed equipment is stationary and autonomous. Maintenance would also be performed in compliance with NPS regulations with regard to prevention of the spread of invasive species. Spread of invasive species would not, therefore, be likely.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

Mitigation Measures

No mitigation measures are required for the proposed project because installation, operation, and maintenance of the proposed telecommunication facilities would have a less than significant impact on vegetation without the need for mitigation.

Impairment

There would be no impacts to vegetation associated with Alternative 1. Impacts to vegetation associated with the proposed project (Alternative 2) would be local, short-term, and minor. The short-term impacts to vegetation at the 15 proposed project sites would not impair the enjoyment of the park for future generations, and impacts would be less than significant.

Cumulative Impacts

Potential cumulative effects to vegetation are based on the analysis of projects in the Channel Islands Telecommunication Project area, presented in Appendix B. Other projects and plans proposed within the project area would be subject to evaluation of potential impacts to vegetation, and where appropriate, to the implementation of Best Management Practices and project-specific mitigation measures and adherence to management practices. Impacts to vegetation from the proposed project would be at a small and localized level. No other projects are proposed in the vicinity of the proposed project sites; therefore, there is no potential for a cumulative impact.

Conclusion Statement

Impacts to vegetation are summarized below.

- CEQA: Less than significant impact.
- NEPA: Local, temporary, and minor impact.

3.7.3 WILDLIFE

This section describes the existing wildlife resources found at each of the proposed project locations on the Channel Islands National Park and evaluates the potential impacts on wildlife resources from the proposed project. The analysis focuses on common wildlife resources and impact evaluation thresholds that do not address sensitive resources. Analysis of the proposed project's effects on sensitive wildlife resources is addressed in Section 3.7.4 (Rare, Threatened, and Endangered Species).

Affected Environment

This section describes the existing wildlife at each of the proposed project locations.

Wildlife Habitat

Wildlife habitat is abundant on the park's five islands; however, the Channel Islands support fewer native animal species than similar habitats on the mainland because few animal species have migrated over the water from the mainland. Many of those animals that have successfully migrated (either by flying or rafting over the water) have evolved into distinct subspecies on the islands. Of the 68 native, non-migratory, terrestrial vertebrate species on the Channel Islands, 23 animals (including birds) are endemic to the park (NPS 2006). The 68 species and the islands they occur on are summarized in Appendix D. Many factors affect the distribution of wildlife species on the islands, including the quality of the various habitats. Habitat use is shaped by land use activities and the abundance and distribution of individual species.

Habitat available to wildlife within the immediate vicinity of these structures is minimal and of poor to average quality due to existing human traffic and previous development. Any wildlife near these areas is adapted to relatively disturbed environments.

Existing Wildlife

Santa Barbara Island

Santa Barbara Island is the smallest of the five Channel Islands comprising the park at about 639 acres in size; as such, it supports relatively few terrestrial animal species. The island's vegetation has been heavily impacted by past human activities and is currently dominated by nonnative vegetation. There are 50 landbirds that nest annually on the island, including peregrine falcons (*Falco peregrines*) and burrowing owls (*Athene cunicularia*). Common species include the rock wren (*Salpinctes obsoletus*), western meadowlark (*Sturnella neglecta*), and orange-crowned warbler (*Vermivora celata*). A large number of western gulls (*Larus occidentalis*) nest every year on the island, hatching in June and fledging in July. The only two mammals found on the island are the Santa Barbara Island deer mouse and the hoary bat (*Lasiurus cinereus*). Pinnipeds, such as the California sea lion (*Zalophus californianus*), breed in the waters and along the shoreline surrounding the island.

San Miguel Island

San Miguel Island, the third largest island in the park at 9,365 acres, contains riparian areas and rocky cliffs, prime habitat for wildlife. The island is home to a number of endemic arthropods, as well as one native amphibian, two reptiles, two mammals, and 48 species of landbirds. Common breeding species of landbird include Allen's hummingbird, house finch, horned lark, orange-crowned warbler, western meadowlark, and lesser goldfinch. Less common bird species include the red-tailed hawk, American kestrel, peregrine falcon, barn swallow, black phoebe, rock wren, and barn owl. Nonnative bird species on the island include the European starling (*Sturnus vulgaris*), brown-headed cowbird (*Molothrus ater*), and house sparrow (*Paser domesticus*). San Miguel Island is also frequented by northern fur seals, northern elephant seals, California sea lions, and harbor seals during the breeding seasons. Due to their staggered breeding seasons, there is almost a continuous concentration of pinnipeds year-round on San Miguel Island beaches. Sheep, cattle, pigs, horses, burros, and black rats were all introduced to San Miguel Island during the 19th and 20th centuries. All domesticated animals have been removed from the island, and efforts are still underway to remove the black rat.

Santa Cruz Island

Santa Cruz Island has the greatest diversity of wildlife of the northern Channel Islands due to its relatively large size of 64,000 acres and its variety of habitats. There are eight species of reptiles and amphibians, 15 species of mammals (including 11 bats), and 51 species of landbirds known to occur on the island. The nine raptor species that are known to live on the Channel Islands are found primarily on Santa Cruz and Santa Rosa Islands. The golden eagle, a nonnative species, is currently being relocated to distant California locations to encourage the return of the native bald eagle. The majority of the wildlife species on Santa Cruz Island are endemic, migratory, protected by the California Department of Fish and Game (CDFG), protected under the federal and state ESAs, and/or listed as species of concern by other notable organizations. Protected species are discussed in greater detail in Section 3.7.4 (Rare, Threatened, and Endangered Species).

There are also about 550 known species of invertebrate fauna on Santa Cruz Island, representing the majority of 750 known invertebrate fauna species found on the Channel Islands. The island also has a diverse native bee population due to its range of topography and vast acreage.

Santa Cruz Island has suffered major impacts to native biological resources from the presence of feral farm animals. The island was once home to the largest single population of feral sheep in the world (Van Vuren and Cobletz 1989). Pigs were introduced to Santa Cruz Island in 1852 and further exacerbated the degradation of native biological resources. Cattle, horses, elk, deer, feral cats, rabbits, goats, European starling (*Sturnus vulgaris*), brown-headed cowbird (*Molothrus ater*), and house sparrow (*Paser domesticus*) also were introduced to the island at various times in the past. NPS instituted an eradication program in the early 2000s to eliminate the feral pig population and restore native flora and fauna (NPS 2002). With the exception of the starling, all of these animals have since been eradicated from Santa Cruz Island.

Santa Rosa Island

Santa Rosa Island's topography and variety of vegetative communities over more than 53,000 acres provide habitat for diverse terrestrial wildlife; however, due to the limited number of studies conducted on the island, native fauna is not fully understood. There are two amphibian, three reptile, and four mammal species on the island. Mice are the most common mammal found on the island. The riparian habitats on the island foster an abundance of bird species, 57 of which were recorded on the island from 1993 to 2000. Nonnative Kaibab mule deer and Roosevelt elk were introduced in 1930 and negatively affected native vegetation and, consequently, native wildlife. Other nonnative species on the island include horses, chuker, and California quail. Sheep, cattle, and pigs were eradicated from Santa Rosa Island in the second half of the 20th century. NPS eradicated the remaining mule deer and elk from the island by 2011.

Regulatory Setting

Federal Regulations

Title 36 Code of Federal Regulations

The provisions listed below apply to all lands administered by NPS within the boundaries of Channel Islands National Park and are subject to further discretionary authority by the Superintendent of the Channel Islands National Park per 36 CFR.

36 CFR §1.5 Visiting Hours, Public Use Limit, Closures, and Area Designations for Specific Use or Activities

The following uses or activities are prohibited, except as authorized by the Superintendent:

Park-wide:

Rocks and Islets: All rocks and islets within the park boundary are closed. These areas include, but are not limited to: Castle Rock, Hare Rock, Prince Island, Arch Rock, Diablo Rocks, Scorpion Rock, Willows Anchorage Rocks, Gull Island, Shag Rock, and Sutil Island. Rocks and islets are essential habitat for nesting and roosting seabirds and/or pinnipeds. Public access may cause disturbance, mortality, and abandonment.

Specific Islands and Area Closures:

Santa Barbara Island:

The shoreline, cliffs, and beaches of Santa Barbara Island are closed to landing and public access except at the landing cove below the ranger station. The shoreline of Santa Barbara Island serves as a rookery and haul-out for seals and sea lions. Public access could cause disturbance, abandonment, and mortality. Sections of trail may be temporarily closed on a seasonal basis to protect nesting seabirds. California brown pelicans nest in areas near some sections of trail. This bird is on the endangered species list. To assure nesting success, some trail sections must be closed seasonally.

San Miguel Island:

At Point Bennett all areas west of the research station or west of a line drawn from Anubis Point to Ferrello Point are closed, except as allowed by permit. Permitted access is only approved for researchers authorized by the Superintendent. San Miguel Island shoreline, cliffs, and beaches are closed to landing except for the beach at Cuyler Harbor. Without a park ranger escort, campers and other visitors on San Miguel Island are not allowed outside the restricted area. The areas open to the public are the beach at Cuyler Harbor, Nidever Canyon trail, Cabrillo Monument, the campground, and the Lester Ranch site. San Miguel Island is owned by the U.S. Navy. Under the terms of the Memorandum of Understanding that opened the island to public access, a ranger escort is required. The area surrounding the active captive island fox facility is closed to public entry. The closed areas comprise approximately 26 acres. NPS intends to maintain these closures for the duration of captive breeding of the island fox.

Santa Cruz Island:

The area surrounding the captive island fox facility is closed. NPS intends to maintain these closures for the duration of captive breeding of the island fox. Bat Cave and the Cavern Point Cave Complex are closed to entry. These dry sea caves are located on the north shore of Santa Cruz Island west of Cavern Point at approximately 34 degrees 03.1022 minutes latitude and 119 degrees 34.2875 minutes longitude.

Santa Rosa Island:

The Sandy Point area of Santa Rosa Island is closed. This area includes all beaches and land areas 300 feet inland from 0.75 mile north from the Sandy Point benchmark to 0.85 mile south from the Sandy Point benchmark. The Skunk Point area of Santa Rosa Island, from March 1 to September 15, is accessible only by permit, from Sandy Point Ridge to the East Point Lagoon and 300 feet inland from the beach/grassland interface, to protect breeding and nesting snowy plovers. Beaches other than Sandy Point and Skunk Point on Santa Rosa Island are open to public landing and use.

36 CFR §2.4 Weapons, Traps, and Nets

(a)(2)(i) Weapons, traps, or nets may only be carried, possessed, or used at the following designated times and locations:

- The possession of firearms or archery equipment is permitted by agents, employees, and guests of The Nature Conservancy when landing at Prisoners Harbor to transit across park lands to access lands owned by The Nature Conservancy on Santa Cruz Island.

State and Local Regulations

There are no applicable state or local laws, ordinances, or regulations pertaining to wildlife.

Environmental Consequences

Thresholds of Significance

The project could have a significant impact on wildlife communities if the project would:

- Interfere substantially with the movement of any native resident, migratory fish, or wildlife species; interfere substantially with established native resident or migratory wildlife corridors; or impede the use of native wildlife nursery sites.

Significance criteria for sensitive wildlife resources (e.g., special-status species) are addressed in Section 3.7.4 (Rare, Threatened, and Endangered Species). Note that impacts to migratory birds as protected under the Migratory Bird Treaty Act (MBTA) and Fish and Game Code are discussed under Section 3.7.4.

Alternative 1 (No Project Alternative)

The No Project Alternative maintains the status quo at all 15 of the proposed telecommunication facility sites. This alternative provides a basis to compare the preferred alternative, to evaluate the magnitude of proposed changes, and to measure the environmental effects of those changes. Under this alternative, all telecommunication sites would remain in their current state, and no telecommunication infrastructure would be installed. No new impacts to wildlife would be associated with the No Project Alternative.

Alternative 2 (Preferred Alternative)

Wildlife Impacts

Installation. Project installation activities would be dispersed and localized to individual sites and each site would be completed over a short time period (i.e., 2 to 2.5 days). Disturbances from project activities would occur within developed sites and access to staging and installation areas would be via existing roads or cleared areas. Wildlife habitat in these areas is highly disturbed and local wildlife is considered acclimated to frequent human disturbance from daily visitors or NPS personnel. Location 2 would require up to 20 linear feet of hand-trenching that could involve the removal of some grasses and ground cover. No power tools would be used for trenching and excavation activities. Other locations may require limited, shallow excavation for telecommunication equipment foundations and footings. The impact of the proposed vegetation

removal for telecommunication equipment installation is not expected to significantly contribute to changes in habitat structure or composition in the project area.

The proposed installation activities would result in a negligible amount of disturbance from activities at each project site and travel to and from each project site. Noise from installation activities would be minimal because only hand tools would be used. The additional vehicle trips required to reach the islands and each of the project sites would be negligible compared to the total number of annual trips to the islands by visitors, researchers, and NPS staff. Impacts to migratory birds protected under the MBTA are addressed in Section 3.7.4.

Helicopter trips would be subject to the conditions set forth by NPS to reduce wildlife exposure to disruptive traffic. Traffic collisions with wildlife during installation and maintenance activities could result in the death of some wildlife; however, these incidences would likely be rare and are not expected to impact the survivorship of individual wildlife communities overall. No long-term impacts would be expected to occur at any of these sites, and impacts to non-sensitive wildlife would be less than significant.

- CEQA: Less than significant impact.
- NEPA: Local, permanent, and minor impact.

Operation and Maintenance. The proposed project would not significantly change the maintenance requirements and schedule at NPS facilities. CITC would conduct routine maintenance of the new telecommunication facilities as needed via regularly scheduled NPS boat trips to the islands; therefore, maintenance work would not cause an increase in boat traffic or create a significant impact to pelagic bird species and marine mammals. A private helicopter may be chartered to bring maintenance personnel to and from the islands if maintenance to the communication link is considered vital by NPS and repairs must be performed in an expedient manner; however, any additional helicopter trips would be subject to the conditions set forth by NPS to reduce wildlife exposure to disruptive traffic. Non-sensitive migratory wildlife populations would experience minimal impacts.

- CEQA: Less than significant impact.
- NEPA: Short-term, local, and minor impact.

Mitigation Measures

No mitigation measures are required for the proposed project because installation, operation, and maintenance of the proposed telecommunication facilities would have a less than significant impact on wildlife without the need for mitigation.

Impairment

There would be no impacts to wildlife associated with Alternative 1. Impacts associated with the proposed project (Alternative 2) are expected to be local, short-term, and negligible. Adherence to applicable regulations would prevent impairment of park resources for future generations, and impacts would be less than significant.

Cumulative Impacts

Potential cumulative effects to wildlife are based on the analysis of projects in the Channel Islands Telecommunication Project area, presented in Appendix B. Other projects and plans proposed within the project area would be subject to evaluation of potential impacts to wildlife, and where appropriate, to the implementation of Best Management Practices and project-specific mitigation measures and adherence to management practices. Wildlife impacts from the proposed project would be at a small and localized level. No other projects are proposed in the vicinity of the proposed project sites; therefore, there is no potential for a cumulative impact.

Conclusion Statement

Impacts to common wildlife are summarized below.

- CEQA: Less than significant impact.
- NEPA: Local, permanent, and minor impact.

3.7.4 RARE, THREATENED, AND ENDANGERED SPECIES

This section describes existing special-status biological resources (i.e., rare, threatened, and endangered plant and animal species) that may occur within the proposed project locations and evaluates the potential impacts from the proposed project. The analysis focuses on species designated as sensitive by federal, state, and local laws, policies, and regulations. Common biological resources such as vegetation communities and wildlife habitats are addressed in Sections 3.7.2 (Vegetation) and 3.7.3 (Wildlife).

Affected Environment

Sensitive species fall into one or more of the following categories:

- Species afforded protection under the Federal Endangered Species Act (FESA) and/or the California Endangered Species Act (CESA)
- Species proposed for listing under FESA and/or CESA
- Species afforded protection under sections of the California Fish and Game Code
- Birds afforded protection under the MBTA of 1918
- Species considered either Federal Special Concern species or California Special Concern species
- Species that meet the definitions of rare or endangered species under CEQA
- Plant species considered sensitive by the California Native Plant Society (CNPS)
- Species considered sensitive or important by local resource groups/agencies or the scientific community

The following section includes a brief discussion of sensitive plant and animal species that either occur within the proposed project locations or have a reasonable chance of occurring within the project locations given existing site conditions and habitats.

Sensitive Animals, Plants, and Habitats

Based on a review of available databases and literature (USFWS 2009; CDFG 2009; CNPS 2009), 83 special-status animal and plant species (including mammals, birds, reptiles, amphibians, and insects) were considered to have the potential to occur within the project area at one or more of the 15 proposed project locations. A complete list of all special-status species considered as part of this assessment, as well as their regulatory status, habitat requirements, local distribution, and potential for occurrence, is included in Appendix D.

Of the 83 species considered in this analysis, 11 animal species and 16 plant species are listed as endangered, threatened, and/or fully protected under FESA or CESA. The remaining 56 species are listed as sensitive by CDFG, the International Union for Conservation of Nature (IUCN), or the Western Bat Working Group (WBWG) and are included in this analysis based on their potential to occur within the project locations.

The project has the potential to impact 31 sensitive species (19 avian species, ten mammal species, one reptile species, and one plant species) and one sensitive habitat. Sensitive species not addressed were excluded based on a lack of suitable habitat, local range restrictions, regional extirpations, lack of connectivity with areas of suitable or occupied habitat, incompatible land use, or habitat degradation/alteration of on-site or adjacent lands in project locations.

The proposed project locations provide suitable nesting, roosting, and foraging habitat for 19 sensitive bird species, which can be expected to forage, roost, winter and/or nest within portions of the project locations corresponding to their specific habitat needs, the time of year, and their tolerance to urban disturbance. The project locations also provide suitable roosting and foraging habitat for two sensitive bat species: the Townsend's big-eared bat and the pallid bat. The 31 sensitive species and one sensitive habitat that could be affected by the project are listed in Table D-2 in Appendix D.

Affected Species

Migratory Birds

All 15 project locations provide potential habitat for a number of birds protected under the MBTA, which protects migratory birds from threatening and deleterious activity. A list of birds protected under the MBTA that have the potential to occur near and possibly within 500 feet of one or more of the 15 proposed project sites is included in Table D-3 in Appendix D.

Federal and State Endangered, Threatened, or Species of Concern Birds

The discussion below provides additional details regarding the 15 special-status bird species that may be present at one or more proposed project locations.

Ashy Storm-petrel, Black Storm-petrel, and Cassin's Auklet. The ashy storm-petrel (*Oceanodroma homochroa*), black storm-petrel (*Oceanodroma melania*), and Cassin's auklet (*Ptychoramphus aleuticus*) are CDFG species of concern that may be found within 500 feet of the proposed project sites on Santa Barbara Island. The ashy storm-petrel and the Cassin's auklet are also USFWS birds of conservation concern. The primary habitat of the ashy storm-petrel, black storm-petrel, and Cassin's auklet is open sea; petrels and auklets only come to land to nest in open, natural cavities

and sea caves. Auklets also nest in sand burrows. All three species are nocturnal while breeding, with nesting activity occurring February to October. A single egg is laid normally in late spring to early summer, with fledging occurring two to three months after hatching. This species may be found in project areas but would not nest in proximity of any of these areas.

Brown Pelican. The FESA-listed endangered brown pelican (*Pelecanus occidentalis*) is found on Santa Cruz, San Miguel, and Santa Barbara Islands. Brown pelicans live in oceanic or brackish water habitats and prefer nesting in undisturbed areas. On Santa Barbara Island, brown pelicans are prolific and nest across the island except in areas frequented by people. They are not currently nesting at location 1, but have been known to nest within 500 feet of the site. Brown pelicans may nest from the beginning of November to the end of September depending on the availability of food and the success of early season broods.

Burrowing Owl. The burrowing owl (*Athene cunicularia*), a CDFG species of concern, may occur at proposed project location 1. It prefers dry grassland or open shrub stages of pinyon juniper and ponderosa pine habitats, and is known to occur on larger offshore islands. The breeding season is from March to August, with a peak in April and May. The owl lives in ground burrows, usually old nests of other animals, or pipes or culverts when burrows are scarce. They also have been observed in buildings (CDFG 2009). Burrowing owl nests may occur in proximity to location 1.

Channel Island Song Sparrow. The Channel Island song sparrow (*Melospiza melodia graminea*) is a CDFG species of concern and may occur within 500 feet of project sites on San Miguel and Santa Rosa Islands. The song sparrow is a diurnal bird that builds its nest on the ground usually near water, in emergent vegetation, or in other moist areas (CDFG 2009). It requires low, moderately dense vegetation for protective cover, nesting, and foraging. Sparrows are most numerous in areas with giant coreopsis (*Coreopsis gigantea*) and shrubs. The breeding season is from late February until mid-July (Shuford and Gardali 2008). Nesting habitat for this avian species is not found in proximity to project areas.

Double-crested Cormorant. The double-crested cormorant (*Phalacrocorax auritus*) is on the CDFG Watch List¹ and may occur within 500 feet of project sites on Santa Barbara Island. It is a diurnal bird, but rests during the daytime and roosts overnight beside water, often on offshore rocks, transmission lines, or dead tree branches. Reproduction occurs at undisturbed nest sites beside water and on wide rock ledges in cliffs or tall trees. Most breeding and egg laying occurs in April through July. The double-crested cormorant is particularly susceptible to human disturbance, but nesting habitat is not found near any of the project areas.

Island Loggerhead Shrike. The island loggerhead shrike (*Lanius ludovicianus anthonyi*) is a CDFG species of concern that may occur within 500 feet of project sites on Santa Rosa and Santa Cruz Islands. It prefers open habitats with sparse trees, shrubs, fences, or other perches and builds its nests on stable branches in well-concealed, densely foliated trees and shrubs. The loggerhead

¹ The CDFG Watch List consists of animals that are not on the current Special Concern list but warrant extra attention, observation, or concern because they either were on previous lists and have not been listed under the CESA, or were on previous state and federal lists and are not currently on either list (CDFG 2009).

shrike lays eggs from March to May and fledging occurs in July or August. Nesting habitat for this avian species is not found in proximity to project areas.

Raptors. The osprey (*Pandion haliaetus*), a CDFG Watch List species; the bald eagle (*Haliaeetus leucocephalus*), a species listed as threatened under FESA, endangered under CESA, and fully protected by CDFG; and the peregrine falcon (*Falco peregrinus*), listed as endangered under CESA, all have the potential to occur within 500 feet of project sites on Santa Cruz Island. The peregrine falcon occurs on the other four islands as well. The osprey prefers ponderosa pine and mixed conifer habitats that include large snags and open trees near large bodies of water. Nests, made from platforms of sticks, are found at the top of large snags, cliffs, or manmade structures. Osprey breeding occurs March to September. The bald eagle also requires habitats of large bodies of water with adjacent snags or other perches. Peak breeding activity occurs from March to June, but bald eagles usually are not found nesting in areas with human disturbance. The peregrine falcon is a rare inhabitant of the five islands. It requires protected cliffs and ledges for cover and breeds near areas with freshwater. Normal nesting sites are depressions or ledges on high cliffs, though peregrine falcons are known to nest on manmade structures or tree or snag cavities. Peregrine falcons are occasionally found on the Channel Islands primarily during winter. Breeding season is early March to late August (CDFG 2009). Raptors are not anticipated to nest in proximity to project areas due to a lack of preferred nesting habitat and the level of human disturbance that already exists in the project areas.

Rhinoceros Auklet. The rhinoceros auklet (*Cerorhinca monocerata*) is on the CDFG Watch List and may occur within 500 feet of proposed project locations 1, 3, and 4 on Santa Barbara and San Miguel Islands. It nests in burrows on undisturbed forested or unforested islands and in cliff caves, and is particularly sensitive to human disturbance. It prefers undisturbed islands with friable soil for digging. Eggs are laid in mid-May to mid-June with full fledging of chicks occurring through August. The rhinoceros auklet is not anticipated to nest in proximity of work areas due to existing levels of disturbance and lack of preferred habitat.

Santa Cruz Island Rufous-crowned Sparrow. The Santa Cruz Island Rufous-crowned sparrow (*Aimophila ruficeps obscura*) is a CDFG species of concern that may occur within 500 feet of project sites on Santa Cruz Island. It prefers sparse, mixed chaparral and coast scrub habitats where it seeks cover in shrubs, rocks, and grass patches. It nests on the ground or in shrubs, with peak breeding in May. All project areas on Santa Cruz Island have annual grassland series with ornamental and nonnatives. These habitats would not support nesting of the sparrow.

Western Snowy Plover. The western snowy plover (*Charadrius alexandrinus nivosus*) is federally listed as a threatened species and is a CDFG species of concern. It breeds primarily on flat, open areas of coastal beaches, sand spits, and sparsely vegetated dunes (USFWS 2001). Breeding season is March through September and nests are constructed on the ground from a shallow scrape or depression lined with beach debris (USFWS 2001). They are sensitive to human presence, but may occur on coastlines 750 feet or more from San Miguel Island project locations 3 and 4 and Santa Rosa Island project locations 11, 12, 16, 17, and 18. The snowy plover is not anticipated to nest in proximity of work areas due to a lack of preferred nesting habitat.

Xantus's Murrelet. The Xantus's murrelet is a candidate species for listing as threatened under FESA and is currently listed as a threatened species under CESA. It is known to occur at location 1 on Santa Barbara Island. The murrelet lives primarily at sea, but approximately 51 percent of the California population of murrelets comes ashore to nest on Santa Barbara Island (CDFG 2004). Nesting is a nocturnal activity and breeding season is primarily February 1 through July 25 (CDFG 2004). The murrelet is known to nest under structures on Santa Barbara Island during the breeding season.

Mammals

Pallid Bat and Townsend's Big-eared Bat. The pallid bat (*Antrozous pallidus*) and the Townsend's big-eared bat (*Corynorhinus townsendii*) are both CDFG species of concern and listed as "imperiled or are at high risk of imperilment" by the WBWG (WBWG 2007). Both bat species have the potential to occur at the Santa Cruz Island project site locations. The Townsend's big-eared bat is known to occur at the Santa Cruz Island Scorpion Ranch (location 6). Townsend's big-eared bats prefer roosting in open areas, but also roost in buildings, bridges, and hollow trees (NPS 2006c; WBWG 2007). They are highly sensitive to human disturbances at roosting, maternity, and hibernation sites. Mating occurs November through February and birthing occurs in May and June. The pallid bat inhabits low elevation rocky arid deserts, shrub-steppe grasslands, oak woodlands, and coniferous forests. They roost in crevices in rocky outcrops and cliffs, caves, mines, trees, and in various human structures (WBWG 2007). Breeding occurs in the late summer and fall, with females normally giving birth in May or June. Juveniles are weaned within 6 to 8 weeks (Yolo Natural Heritage Program 2009). Peak activity of both bat species is in late evening.

Silver-haired Bat. The silver-haired bat (*Lasiorycteris noctivagans*) is not listed pursuant to either FESA or CESA; however, the WBWG classifies the species as "warrant[ing] closer evaluation, more research, and conservation actions" (WBWG 2007). It is primarily a forest dweller and roosts in hollow trees or snags, caves, and buildings and may occur at project site locations on Santa Cruz Island. Mating occurs in late August with young being born in May through July. Peak activity for this species is in late evening.

Island Fox. The San Miguel Island fox (*Urocyon littoralis littoralis*), Santa Rosa Island fox (*Urocyon littoralis santarosae*), and Santa Cruz Island fox (*Urocyon littoralis santacruzae*) are all listed as endangered species under FESA and as threatened species by the California Environmental Protection Agency (Cal/EPA). These three island foxes may occur within the vicinity of project sites on their namesake island; specifically, the Santa Cruz Island fox has been seen at the Scorpion Ranch site (location 6). Their habitat includes mixed chaparral, coastal scrub, shrubs, and woodland, though they prefer complex vegetation with high density of woody, fruiting shrubs, and rocky places with dense brush for cover. The island fox dens in burrows, stumps, logs, or under rocks. Foraging peaks in early morning and late afternoon/evening, with the least activity at midday or very early morning. Mating occurs in February and March, with young born in late April and May. Pups experience a period of extended parental care but resemble adults by late summer (NPS 2006b).

Santa Cruz Island Harvest Mouse. The Santa Cruz Island harvest mouse (*Reithrodontomys megalotis santacruzae*) is endangered under both FESA and CESA and is listed as fully protected by CDFG. It is a dispersed species found across the island, but is considered significantly rare to warrant an inclusion on the CDFG Watch List. The initial sighting of the Santa Cruz Island harvest mouse in 1948 was in a small, grassy area near the marsh at Prisoners Harbor, but subsequent sightings indicate that any moist habitat with appropriate nesting sites could host the harvest mouse (Collins 1998). Information on the Santa Cruz Island harvest mouse is limited; however, the Santa Cruz Island subspecies is considered substantially similar to the better understood common harvest mouse (*Reithrodontomys megalotis*). Reproductive behavior of the Santa Cruz Island harvest mouse, including periods of breeding and nesting habitats, is assumed to be interchangeable with the common harvest mouse; thus, it can be expected to breed year-round, primarily from early spring to late autumn with a slight decrease in midsummer. Nests are spherical in shape and located on the ground under heavy grass, bushes, or fallen logs and occasionally up to 1 meter above the ground in shrubs (Webster and Jones 1982).

Guadalupe Fur Seal and Northern Fur Seal. The Guadalupe fur seal (*Arctocephalus townsendii*) and the northern fur seal (*Callorhinus ursinus*) are both found near San Miguel Island. The Guadalupe fur seal is a threatened species under both FESA and CESA. The northern fur seal is considered a vulnerable species by IUCN. Neither of these species occurs near project locations 3 and 4, though they may occur in waters near flight or boat routes.

Channel Islands Spotted Skunk. The Channel Islands spotted skunk (*Spilogale gracilis amphiala*) is listed by CDFG (2009) as a species of concern and may occur with the vicinity of proposed project sites on Santa Cruz and Santa Rosa Islands. It is a nocturnal animal that prefers hilly habitat with grass, coastal sage, or scrub oak. It is relatively rare and particularly sensitive to environmental disturbances. The spotted skunk may inhabit multiple dens, which can be made from any abandoned burrow, rocky crevice, or hollow tree, in groups of up to 20 females. In contrast, males are solitary. Breeding season is in September and October and kits are born in late April and May (Hakkinen 2001).

Reptiles and Amphibians

Island Night Lizard. The island night lizard (*Xanthusia riversiana*) is listed as threatened under FESA and is found on Santa Barbara Island. The species may occur at project location 1, but it is rarely found out in the open and prefers environments with extensive cover. Ice plant, rocks, logs, and rubble are all used for cover by the night lizard. It is active primarily during the warmer time of year (i.e., March through September). It can be active during the day as well as at night. Reproduction is in early spring and birthing is in late summer (CDFG 2009).

Vegetation

Island Mallow. Island mallow (*Lavatera assurgentiflora*) is a native shrub found within 20 feet of location 4 on San Miguel Island. It is considered endangered under both federal and state regulations. It is a perennial, bushy shrub generally ranging from 1 to 4 meters in height. Flowers are deep, magenta pink and characterized by five dark-veined petals.

Sensitive Habitat

Southern Dune Scrub. The southern dune scrub is a sensitive, rare plant community also identified as Sand verbena-beach bursage series in Sawyer and Keeler-Wolf (1995). It can be found in areas of the Channel Islands vegetation with constant moving sands and extreme aridity; the stabilization of sand will lead to the conversion of southern dune scrub to a coastal sage scrub plant composition. It is not found near any project locations. Plant species found in southern dune scrub communities can include El Segundo spineflower (*Chorizanthe californica var. suksdorfii*) and El Segundo dune flower (*Pholisma paniculatum*) (Pacific Municipal Consultants 2006).

Regulatory Setting

Federal Regulations

Federal Endangered Species Act

FESA protects plants and wildlife that are listed as endangered or threatened by USFWS and the National Marine Fisheries Service.

Section 9 of FESA prohibits the taking of endangered wildlife, where taking is defined as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct” (50CFR 17.3). This statute also governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of federal law (16 USC 1538).

Under Section 7 of FESA, federal agencies are required to consult with USFWS if their actions, including permit approvals or funding, could adversely affect an endangered species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion, USFWS may issue an incidental take statement allowing take of the species that is incidental to another authorized activity, provided that the project will not jeopardize the continued existence of the species.

Section 10 of FESA provides for issuance of incidental take permits to private parties provided that a habitat conservation plan is developed.

Migratory Bird Treaty Act

The MBTA implements international treaties between the United States and other nations devised to protect migratory birds and any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR part 13, General Permit Procedures, and 50 CFR part 21, Migratory Bird Permits.

State Regulations

California Endangered Species Act

The CESA generally parallels the main provisions of the FESA, but unlike its federal counterpart, CESA applies the take prohibitions to species proposed for listing. Section 2080 of the Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in Section 86 of the Fish and Game Code as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” The CESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with CDFG to ensure that any project they undertake is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

California Fish and Game Code – Fully Protected Species (Section 3511)

The State of California first began to designate species as “Fully Protected” prior to the creation of CESA and FESA. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, and included fish, mammals, amphibians, reptiles, and birds. Most fully protected species have since been listed as threatened or endangered under CESA and/or FESA. The regulations that implement the Fully Protected Species Statute (Fish and Game Code Section 4700) provide that fully protected species may not be taken or possessed at any time. Furthermore, CDFG prohibits any state agency from issuing incidental take permits for fully protected species, except for necessary scientific research.

California Fish and Game Code – Migratory Birds and Raptors (Sections 3503, 3503.5, 3305, and 3513)

The State of California has incorporated the protection of migratory birds and birds of prey in Sections 3503, 3503.5, 3305, and 3513 of the Fish and Game Code. Specific language the protection of these bird species is provided below.

- Section 3503 -- It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.
- Section 3503.5 -- It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.
- Section 3505 -- It is unlawful to take, sell, or purchase any egret or osprey, bird of paradise, gaura, numidi, or any part of such a bird.
- Section 3513 -- It is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act.

Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 (Fish and Game Code Sections 1900-1913) was created with the intent to “preserve, protect and enhance rare and endangered plants in this State.” NPPA is administered by CDFG. The Fish and Game Commission has the authority to designate native plants as “endangered” or “rare” and to protect endangered and rare plants from take. The CESA of 1984 (Fish and Game Code Sections 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the Fish and Game Code.

Local Regulations

There are no applicable local laws, ordinances, or regulations pertaining to rare, threatened, or endangered species.

Environmental Consequences

Thresholds of Significance

The project could have a significant impact on rare, threatened, and endangered species or sensitive habitat if the project would:

- Have a substantial adverse effect on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFG or USFWS, directly or through habitat modifications
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan

Alternative 1 (No Project Alternative)

The No Project Alternative maintains the status quo at all 15 of the proposed telecommunication facility sites. This alternative provides a basis to compare the preferred alternative to evaluate the magnitude of proposed changes, and to measure the environmental effects of those changes. Under this alternative, all telecommunication sites would remain in their current state, and no telecommunication infrastructure would be installed. No new impacts to rare, threatened, or endangered species or their habitats would be associated with the No Project Alternative.

Alternative 2 (Preferred Alternative)

Rare, Threatened, and Endangered Species Impacts

Installation. Installation activities would be limited to existing cleared sites at the 15 proposed project locations. None of the locations are subject to a habitat conservation plan or natural community conservation plan. The project locations are paved, covered with gravel, or covered with packed and cleared earth. Limited ground disturbance would be required for equipment installation, and this ground disturbance would occur on previously disturbed areas that contain little to no vegetation.

Migratory Birds. Impacts to migratory birds protected under the MBTA and/or Fish and Game Code would be minimal due to the nature of the project. Minimal noise would be generated and minimal ground disturbance is required to install the project components. Construction equipment used for the project would be limited to hand tools and all trenching and shallow

excavation activities would be performed by hand to minimize noise. All components would be installed near existing facilities where regular, similar noise is generated from human presence. Raptors are not anticipated to be nesting near project areas. Passerines may nest in proximity to buildings and disturbed areas; however, these birds would be expected to be habituated to the level of noise that could be generated by project installation and nest abandonment or other impacts on reproductive success of these birds are not anticipated.

If an active bird nest is located on a building in a location where equipment must be installed, direct impacts to the nest (i.e., removing the nest to install the equipment) in violation of law could occur. Mitigation Measure RTE Species-2, which requires checking for active bird nests in the immediate area of an installation, contacting an NPS biologist if any are found, and avoiding work in those areas until the nestlings have fledged, would minimize effects.

Sensitive Bird Species. As many as 15 sensitive avian species could forage within 500 feet of project installation sites and three of these species (brown pelican, burrowing owl, and Xantus's murrelet) may nest in proximity to project sites. Minimal noise would be generated and minimal ground disturbance is required to install the project components. Construction equipment used for the project would be limited to hand tools and all trenching and shallow excavation activities would be done by hand. All components would be installed near existing facilities where regular, similar noise is generated from human presence and maintenance activities. Construction work may discourage foraging activities of these species in the immediate proximity of work; however, given the short duration of installation (2-2.5 days per site) and the small footprint of each work area on disturbed grounds, impacts would be minimal.

Three of the sensitive bird species could nest in close proximity to the work areas at location 1. The noise generated could impact nesting activity and in a rare instance result in abandonment of a nest. Noise generated would be less than typical construction sites and should generally be similar to maintenance activities that already occur near the proposed sites; however, to ensure that nesting species are not impacted, measure RTE Species-1 would be implemented. The measure requires a pre-installation survey for nesting sensitive species if work is to occur within the breeding season of these species. Establishment of protective buffers within which no work would be allowed would avoid effects.

Bats. Installation activities are not anticipated to impact special-status bat species including the pallid, silver, and Townsend's big-eared bats. Although bats could occur in crevices or in buildings, installation activities are primarily performed by hand, generate little noise, and generate minimal disturbance. Installation of antennas, poles, and solar panels on buildings would occur by hand and any bats that may be in proximity to the installation location would likely flee from the area or otherwise remain in place but be undisturbed. All installation activities are proposed in areas of regular human presence, and the activities would generate the same level of effects as currently periodically occurs for maintenance of these areas.

A known maternity colony of Townsend's big-eared bats resides in the Scorpion Ranch bakery on Santa Cruz Island (location 6); however, no equipment would be installed on the Scorpion Ranch bakery. Installation may generate some noise; however, this site is currently disturbed and noise is

not anticipated to be greater than existing noise from human presence. No impacts to the known maternity colony are anticipated.

Small Mammals. Installation is not anticipated to impact sensitive harvest mice, island foxes, and spotted skunks because these animals are primarily active at night or after installation work hours, only limited ground disturbance or trenching would occur at any of the project sites, and all staging of telecommunication equipment would occur on existing cleared areas considered fully disturbed and part of existing NPS facilities. These animals can also move out of harm's way.

Plants. Installation activity could impact the island mallow, which occurs at location 4. No ground disturbance would occur for installation activities at location 4 and, therefore, the plant would not be impacted.

Sensitive Habitats. One sensitive habitat, Southern Dune Scrub, occur on San Miguel Island; however, this habitat is not found at project locations 3 or 4. No potential impact to sensitive habitat would occur as a result of project installation because installation activity is limited to previously disturbed and cleared sites and transportation of materials to these locations would occur on existing roads. There is no water runoff anticipated with the proposed project; therefore, there would be no impact to the water supply of these habitats.

- CEQA: Less than significant impact with mitigation.
- NEPA: Local, long-term, and minor impact with mitigation.

Operation and Maintenance. Operation activities would have no impact on sensitive species and habitat because all installed equipment is stationary, silent, and autonomous. CITC would conduct routine maintenance of the new telecommunication facilities as needed. Maintenance also would also be performed if there is damage to an installation or a report from a customer of a service problem. Maintenance workers would likely access the facilities via regularly scheduled concessionaire or NPS boat trips to the islands for routine maintenance activities and would not cause a substantial increase in boat traffic; therefore, boat transportation of construction workers and materials would not create a significant impact to pelagic bird species and/or marine mammals. NPS vehicles would be used for ground transportation to project locations and would use existing roads. Maintenance activities would have a less than significant impact on sensitive species and habitat.

- CEQA: Less than significant impact.
- NEPA: Local, long-term, and minor impact.

Mitigation Measures

Mitigation Measure RTE Species-1: (Location 1): Installation at location 1 (Santa Barbara Island Ranger Station) shall be limited to months outside the breeding periods of the brown pelican (November 1 through September 30), burrowing owl (March 1 through August 30), and Xantus's murrelet (February 1 through July 25). An NPS ranger or qualified biologist shall conduct a pre-installation survey to determine the proximity of brown pelican, burrowing owl, or Xantus's murrelet if installation at these two locations must occur within the nesting season of these species. The biologist shall determine the appropriate survey radius from the work

area depending on site conditions and anticipated noise generated by the installation activities. If nests are found, the biologist shall establish a no-work buffer as appropriate for the site conditions. No work shall be allowed within the buffer until nestlings have fledged, as determined by the biologist.

Mitigation Measure RTE Species-2: A member of the construction crew shall check for any active bird nests on the areas of installation (within 10 feet of installation areas) prior to commencing installation activities at all locations. If no active nests are found, work can commence. If nests are found work shall be delayed and the NPS biologist contacted. Work shall commence when the NPS biologist deems that nestlings have fledged.

Impairment

There would be no impacts to special-status (i.e., rare, threatened, or endangered) species associated with Alternative 1. Impacts associated with the proposed project (Alternative 2) are expected to be local, short-term, and minor. Adherence to applicable regulations and implementation of mitigation measures would prevent impairment of park resources for future generations, and impacts would be less than significant.

Cumulative Impact

Potential cumulative effects to special-status (i.e., rare, threatened, or endangered) species are based on the analysis of projects in the Channel Islands Telecommunication Project area, presented in Appendix B. Other projects and plans proposed within the project area would be subject to evaluation of potential impacts to sensitive species, and where appropriate, to the implementation of Best Management Practices and project-specific mitigation measures and adherence to management practices. Impacts to sensitive species from the proposed project would be at a small and localized level. No other projects are proposed in the vicinity of the proposed project sites; therefore, there is no potential for a cumulative impact.

Conclusion Statement

Impacts to rare, threatened, and endangered biological resources are summarized below.

- CEQA: Less than significant with mitigation.
- NEPA: Local, long-term, and minor impact with mitigation.

3.7.5 AIR QUALITY AND GREENHOUSE GASES

This section describes the existing air quality conditions in the South Central Coast Air Basin and evaluates the potential impacts on air quality from the proposed project. The section also assesses the impact on greenhouse gases (GHGs) from installation of the proposed project. The analysis focuses on impacts to sensitive receptors.

Affected Environment

Existing Air Quality

The project area is located within the South Central Coast Air Basin, which is located next to the Pacific Ocean, just north of the highly populated South Coast Air Basin. San Miguel, Santa

Barbara, Santa Cruz, and Santa Rosa Islands are under the jurisdiction of SBCAPCD. Air quality in these areas also is regulated by EPA and the California Air Resources Board (CARB). Each of these agencies develops rules, regulations, policies, and/or goals to comply with applicable legislation. Although EPA regulations may not be superseded, both state and local regulations may be more stringent.

The islands have a Mediterranean climate that is characterized by warm, dry summers and cool, moist winters. Fog is common throughout the year (NRCS 2007). The climate is largely controlled by the ocean currents, which are driven by the prevailing northwesterly winds. As the ocean currents flow south around Point Conception, where the coast of California turns eastward, the full force of the winds and the current strikes San Miguel Island. On all of the islands, almost all of the rainfall occurs in November through April. Summer thunderstorms are extremely rare.

Wind is a dominant climatic factor in the island environment. Wind data are available for four of the islands (all but San Miguel Island). The prevailing wind on Santa Barbara and Santa Rosa Islands is from the west or west-northwest. Santa Cruz Island has two climate stations: one at Del Norte near Prisoners Harbor in the northeastern part of the island and one in the island's central valley. The prevailing wind at the Del Norte station is from the northeast and the prevailing wind at the central valley station is from the west-northwest (NRCS 2007).

Air quality of the Channel Islands generally is excellent except when the offshore Santa Ana winds blow, which typically occurs in late autumn through the winter. Manmade pollutant levels typically are low at the islands due to their remote location with respect to pollution sources and the prevalence of onshore winds for most of the year. Visibility and clarity often are naturally reduced by fog and haze. There are few emission sources on or near the islands, except for passing tankers, recreational and commercial boats, and a small number of vehicles and generators located on developed areas of the islands (NPS 1984).

Regulatory Setting

Federal Regulations

U.S. Environmental Protection Agency

EPA has been charged with implementing national air quality programs. EPA has established a National Ambient Air Quality Standard (NAAQS) for ozone, nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide (SO₂), particulate matter less than 10 microns in diameter (PM₁₀), and particulate matter less than 2.5 microns in diameter (PM_{2.5}).

State Regulations

California Air Resource Board

CARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act. CARB has established standards for ozone, CO, NO₂, SO₂, sulfates, PM₁₀, PM_{2.5}, lead, hydrogen sulfide (H₂S), and visibility-reducing particles.

Local Regulations

SBCAPCD seeks to improve air quality conditions in Santa Barbara County through a comprehensive program of planning, regulation, enforcement, and promotion of the understanding of air quality issues. The clean air strategy of SBCAPCD includes preparing plans and programs to attain ambient air standards, adopting and enforcing rules and regulations, and issuing permits for stationary sources. SBCAPCD also inspects stationary sources, responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements other programs and regulations required by EPA and CARB. There are no specific SBCAPCD rules or permitting requirements that would apply to this project.

Table 3.7-2 lists the current designations under the NAAQSs and CARB standards for SBCAPCD. Nonattainment and attainment designations are based on whether or not air quality standards have been achieved. Some air basins or areas have not received sufficient analysis for certain criteria air pollutants and are designated as unclassified for those pollutants.

Table 3.7-2: State and National Air Quality Designations for SBCAPCD		
Pollutant	State Designation	National Designation
Ozone (1-hour)	-	-
Ozone (8-hour)	Nonattainment	Unclassifiable/Attainment
Sulfur Dioxide (SO ₂) (Annual Arithmetic Mean)	-	-
Sulfur Dioxide (SO ₂) (24-hour)	Attainment	-
Sulfur Dioxide (SO ₂) (1-hour)	Attainment	Attainment
Particulate Matter (PM ₁₀) (Annual Arithmetic Mean)	Nonattainment	Attainment
Particulate Matter (PM ₁₀) (24-hour)	Nonattainment	Attainment
Particulate Matter (PM _{2.5}) (Annual Arithmetic Mean)	Unclassifiable/Attainment	Unclassifiable/Attainment
Particulate Matter (PM _{2.5}) (24-hour)	-	Unclassifiable/Attainment
Sulfates	Attainment	-
Lead (Calendar Quarter)	-	Attainment
Lead (30-day Average)	Attainment	-
Lead (Rolling 3-month Average)	-	Unclassifiable/Attainment
Hydrogen Sulfide (H ₂ S)	Attainment	-
Vinyl Chloride	-	-
Visibility-reducing Particles	Attainment	-

SOURCE: SBCAPCD 2012a

Sensitive receptors are identified as areas that are frequently used by persons most sensitive to the effects of air pollution, such as the very young, the elderly, or people weak from illness or disease. These receptors generally include residential land uses, schools, hospitals, and retirement homes. The project is located in a rural and remote area; therefore, there are few nearby sensitive receptors. The only permanent sensitive receptors on the islands are the NPS staff that live on the islands. Visits from recreationalists tend to be brief in nature, making them transitory sensitive receptors.

Greenhouse Gases

Executive Order S-3-05

Signed by the California Governor in 2005, Executive Order S-3-05 asserts that California has vulnerability to the impacts of climate change. The Executive Order states that increased temperatures could reduce the Sierra snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the Executive Order established total GHG emission targets. Specifically, emissions are to be reduced to the 2000 level by 2010, to the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

The Executive Order directed the Secretary of Cal/EPA to initiate a multi-agency effort to reduce GHG emissions to the target levels. The Secretary is responsible for submitting biannual reports to the Governor and state legislature that outline: (1) progress made toward reaching the emission targets, (2) impacts of global warming on California's resources, and (3) measures and adaptation plans to mitigate these impacts. To comply with the Executive Order, the Secretary of Cal/EPA created a Climate Act Team (CAT) composed of members of various state agencies and commissions. CAT released its first report in March 2006. The report proposed to achieve the targets through building on voluntary actions of California businesses, local governments, and communities, in addition to emission reductions achieved through state incentives and regulatory programs.

Global Warming Solutions Act of 2006

The State of California adopted the Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32) on September 27, 2006, to address the threat of global warming caused by the increase in GHG emissions. AB 32 requires sources within the state to reduce carbon emissions to 1990 levels by the year 2020. The 1990 CO₂ equivalent emissions are estimated to be 427 million metric tons. CARB has estimated CO₂ equivalent emissions to be 596.4 million metric tons in 2020 if no actions are taken to reduce GHG emissions. Emission sources in the state would need to reduce emissions by approximately 28 percent (or 169 million tons) before 2020 to meet this goal. The primary sources of GHG emissions are on-road transportation, electric power generation, and industrial facilities.

CARB recently developed mandatory reporting rules for significant sources of GHGs as a result of the passage of AB 32 (Subchapter 10, Article 1, sections 95100 to 95133, Title 17, California Code of Regulations). The proposed project would not be considered a significant source of GHG emissions and, therefore, would not be subject to mandatory GHG emissions reporting.

CARB also developed and approved a Scoping Plan that indicates how GHG emission reductions would be achieved for significant GHG sources. CARB intends to adopt the Scoping Plan, which

contains regulations to achieve maximum technologically feasible and cost-effective GHG emission reductions. The Scoping Plan includes Measures for Commercial Harbor Craft, including Maintenance and Design Efficiency and Vessel Speed Reduction. The Measures for Commercial Harbor Craft are voluntary. The Vessel Speed Reduction measure would be voluntary/regulatory. The various boats used by NPS for transportation to and from the Channel Islands would be required to comply with these measures.

Environmental Consequences

Thresholds of Significance

Santa Barbara County Air Pollution Control District Air Quality Significance Thresholds

SBCAPCD has established that the proposed project would have a significant air quality impact if it satisfied any of the following conditions (SBCAPCD 2000):

- Emit more than the daily trigger for offsets of Air Quality Impact Analysis set in the APCD New Source Review rule (i.e., 240 pounds per day for reactive organic gases (ROG) or nitrogen oxides (NO_x) and 80 pounds per day for PM₁₀)
- Emit more than 25 pounds per day of NO_x or ROG from motor vehicle trips only
- Cause or contribute to a violation of any California or NAAQS (except ozone)
- Exceed the SBCAPCD health risk public notification thresholds adopted by the SBCAPCD Board
- Be inconsistent with the latest adopted federal and state air quality plans for Santa Barbara County

Greenhouse Gas Significance Thresholds

SBCAPCD and NPS have not established significance thresholds for GHG emissions; however, SBCAPCD is considering the adoption of GHG significance thresholds. SBCAPCD is considering a GHG threshold for stationary sources of 10,000 metric tons of CO₂ equivalent per year, which is identical to the interim threshold adopted by the South Coast Air Quality Management District (SCAQMD) (SBCAPCD 2012b). SCAQMD is considering a qualitative threshold based on capturing 90 percent or more of likely future discretionary developments. The objective of a qualitative threshold is low enough to capture a substantial fraction of future land use development expected to be constructed to accommodate future statewide population and job growth, while the emission threshold is high enough to exclude most small land use development projects that contribute a minor fraction of cumulative statewide GHG emissions.

The 2008 CARB Preliminary Draft Staff Proposal for setting significance thresholds for GHGs (CARB 2008) presumes that there would be a less than significant impact related to climate change if interim CARB performance standards are implemented for transportation-related activities. Therefore, the significance of project GHG impacts was evaluated using CARB performance standards for industrial and residential/commercial projects. The proposed project would be most similar to a residential/commercial project.

The CEQA Guidelines, Appendix G, Environmental Checklist Form includes qualitative thresholds of significance for GHG emissions. The proposed project would result in a significant impact if it resulted in either or both of the following:

- Generation of GHG emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance
- Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emission of GHGs

Alternative 1 (No Project Alternative)

The No Project Alternative maintains the status quo at all 15 of the proposed telecommunication facility sites. This alternative provides a basis to compare the preferred alternative, to evaluate the magnitude of proposed changes, and to measure the environmental effects of those changes. Under this alternative, all telecommunication sites would remain in their current state, and no telecommunication infrastructure would be installed. No new impacts to air quality or GHGs would be associated with the No Project Alternative.

Alternative 2 (Preferred Alternative)

Air Quality Standards, Plans, and Criteria Pollutants

Installation. The installation crew and equipment would need to be transported to the proposed project locations each day throughout installation. Regularly scheduled concessionaire or NPS-approved private charter boat trips would be used whenever possible to the islands. If a concessionaire or NPS-approved private charter boat is not running at a desired date or time or additional trips are needed in excess of scheduled boat trips, then an NPS-approved privately chartered helicopter or normally scheduled NPS boat trip would be used to access the sites. Such non-concessionaire and non-NPS-approved private charter trips would be expected to be a rare occurrence. The installation crew commutes typically would include arrival at a boat dock followed by mobilization to the project site on foot or in an NPS pickup truck. In rare instances where there is no road or other ready access to the project site, a helicopter would be used to transport installation crews and materials to the project locations. Emissions from the occasional use of helicopters or chartered boats and transportation from the loading dock to the project locations would be a local, short-term, and minor impact and would be below the significance thresholds listed above.

Project installation would involve the use of hand tools, including battery-powered hand tools, and would not involve the use of any diesel-powered equipment; therefore, there would be no combustion-related emissions, including air toxics, from installation equipment. The project would involve limited ground disturbance where hand tools would be used for digging. Therefore, no fugitive dust emissions would be expected from installation of the project.

The proposed project would not conflict with applicable air quality plans because the project would have a less than significant impact to air quality standards. Impacts would be local, short-term, and minor and would be below the significance thresholds listed above.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

Operation and Maintenance. There are no air emissions or impacts to air quality standards or plans associated with operation of the project. Occasionally, routine maintenance or repairs would need to be conducted and a maintenance worker would need to travel to the island. Any travel to the island would be done using the regularly scheduled NPS boats; therefore, no increase in emissions due to maintenance employee commutes would be expected. Impacts from operation and maintenance would be less than significant and involve local, short-term, and minor impacts.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

Air Conformity Analysis

NEPA requires preparation of an air conformity analysis for all projects. The proposed project would have minor and short-term air quality impacts during installation and maintenance activities, and these impacts would be below all applicable air quality standards and significance thresholds listed above.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

Odors and Sensitive Receptors

The installation, operation, and maintenance of the proposed project would not create objectionable odors. There are no schools, hospitals, or other sensitive receptors located near the project locations; therefore, no impacts would occur to sensitive receptors.

- CEQA: No impact.
- NEPA: No impact.

Greenhouse Gas Emissions

Installation. Transportation of installation workers to and from the sites would result in emissions of combustion-related pollutants. This would be the only source of GHG emissions from this project. The draft CARB proposal presumes that there would be a less than significant impact related to climate change if interim CARB performance standards are implemented for transportation-related activities. The project description defines that travel to and from the island shall be on regularly scheduled concessionaire or NPS-approved private charter boats unless a concessionaire or NPS-approved private charter boat is not running at a desired date or time, is not available, or additional trips are needed in excess of scheduled boat trips. Project-related GHG emissions would be well below any significance thresholds currently being considered by

SBCAPCD. The project description was designed to reduce project GHG emissions to a less than significant level; therefore, no additional mitigation is required.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

Operation and Maintenance. No GHG emissions would be generated from operation of the project. Occasionally, routine maintenance or repairs would need to be conducted and a maintenance worker would need to travel to the island. Any travel to the island would be done using the regularly scheduled concessionaire or NPS-approved private charter boats whenever possible; therefore, the increase in GHG emissions from maintenance employee commutes would be minimal, and would represent a local, short-term, and minor impact.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

Greenhouse Gas Policies

There are no existing GHG plans, policies, or regulations that have been adopted by CARB, SBCAPCD, or NPS that would apply to the type of emissions source from the proposed project. It is possible that one of these agencies may develop performance standards for transportation activities prior to or during the installation of the project. These performance standards would be implemented and adhered to, and there would be no conflict with any applicable plan, policy, or regulation. Project installation involves using regularly scheduled concessionaire or NPS-approved private charter boat trips to and from the five islands, and using NPS vehicles while on the island, which would minimize the GHG emissions that would be generated by the project. In addition, the project would result in improved communication between the islands and the mainland, and would help reduce the frequency of aborted trips to the islands due to weather conditions, which would in turn reduce future GHG emissions for travel to and from the islands. Project installation, operation, and maintenance impacts on GHG emission plans, policies, or regulations would be minimal.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

Mitigation Measures

No mitigation measures are required for the proposed project because installation and operation of the proposed telecommunication facilities would have a less than significant impact on air quality and GHG emissions without the need for mitigation.

Impairment

There would be no air quality or GHG impacts associated with Alternative 1. Impacts to air quality or GHG associated with the proposed project (Alternative 2) would be local, short-term, and minor; however, the short-term air quality impacts at the 15 proposed project sites would not impair the enjoyment of the park for future generations, and impacts would be less than significant.

Cumulative Impact

Potential cumulative effects to air quality or GHGs are based on the analysis of projects in the Channel Islands Telecommunication Project area, presented in Appendix B. Other projects and plans proposed within the project area would be subject to evaluation of potential impacts to air quality or GHG impacts and, where appropriate, to the implementation of Best Management Practices and project-specific mitigation measures and adherence to management practices. The air quality and GHG emission impacts for the project described herein are minimal and temporary, and would be less than the impacts for any of the other relevant projects in the area. The proposed project would, therefore, have a less than significant cumulative impact on air quality and GHG emissions.

Conclusion Statement

Impacts to air quality and GHG emissions are summarized below.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

3.7.6 NOISE

This section describes the existing sources of noise at each of the proposed project locations on the Channel Islands National Park and evaluates the potential impacts on noise from the proposed project. The analysis focuses on impacts to sensitive receptors from installation activities.

Affected Environment

This section describes general noise properties and the existing sources of noise at each of the proposed project locations.

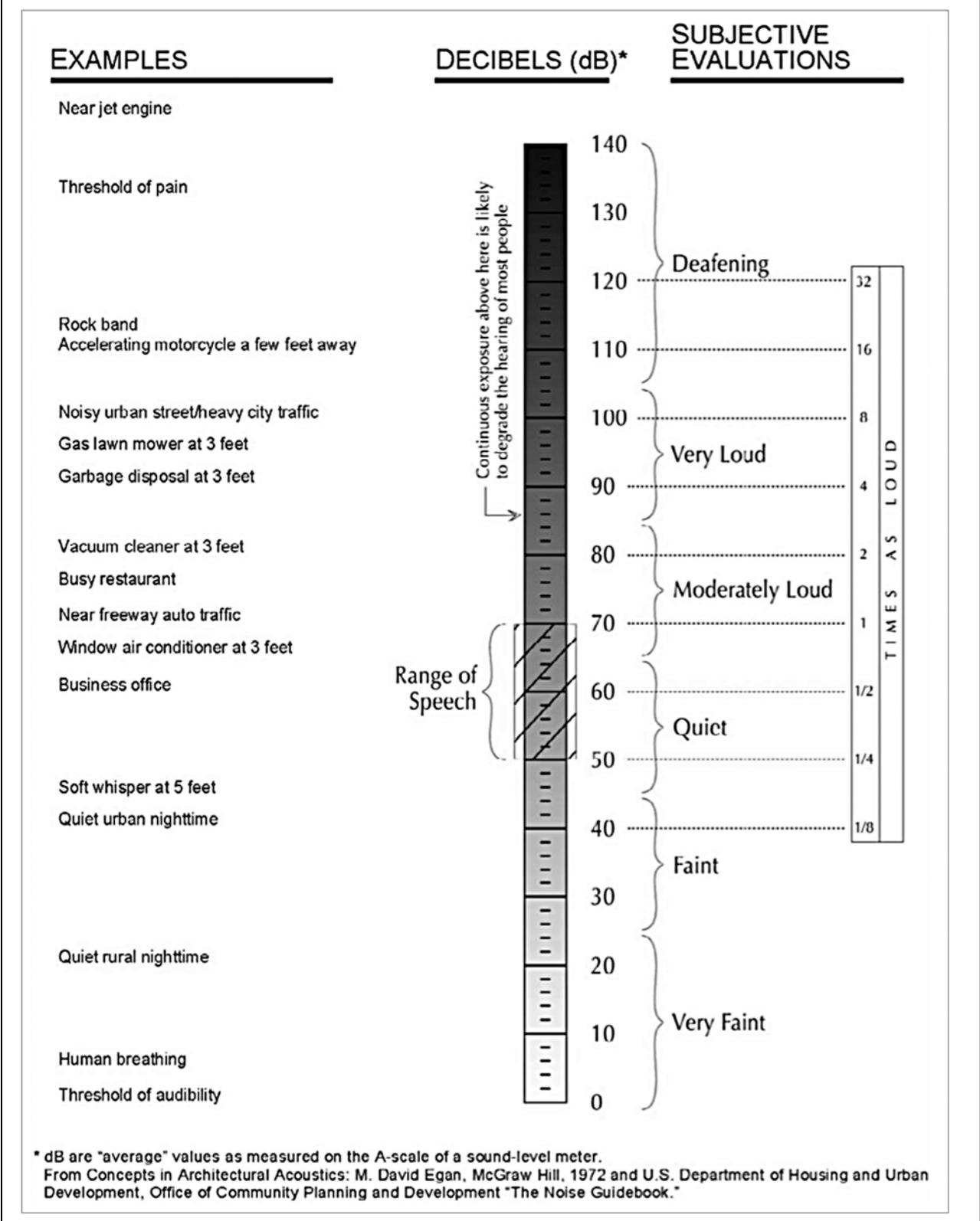
Acoustical Fundamentals

Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. Sound levels are usually measured and expressed in decibels (dB) with 0 dB corresponding roughly to the threshold of hearing. Airborne sounds may be described in terms of both amplitude and frequency.

Most of the sounds that we hear in the environment do not consist of a single frequency, but a broad band of frequencies, with each frequency differing in sound level. The intensities of each frequency combine to generate a sound.

Noise is defined as unwanted sound. Sound becomes “noise” when it interferes with sleep or conversation and when it causes physical harm. Human perception of noise is subjective and varies considerably. Ambient background noise is the average noise level caused by all noise sources in an area. The background noise level changes in response to the level of activity nearby. Intrusive noise is caused by isolated events that clearly stand out from background; these events are responsible for much of the annoyance caused by noise. Sound levels from familiar sources are shown on Figure 3.7-1.

Figure 3.7-1: Examples of Sound Levels from Familiar Sources



SOURCE: EDAW 2007

Sound Propagation and Attenuation

As sound (noise) propagates from the source to the receptor, the attenuation, or manner of noise reduction in relation to distance, is dependent on surface characteristics, atmospheric conditions, and the presence of physical barriers. The inverse-square law describes the attenuation caused by the pattern in which sound travels from source to receptor. Sound travels uniformly outward from a point source in a spherical pattern with an attenuation rate of 6 dBA per doubling of distance (dBA/DD). The surface characteristics between the source and the receptor may result in additional sound absorption and/or reflection. Atmospheric conditions such as wind speed, temperature, and humidity may affect noise levels. Furthermore, the presence of a barrier between the source and the receptor also may attenuate noise levels. A noise barrier may be any natural or manmade feature such as a hill, tree, building, wall, or berm (Caltrans 1998).

Vibration

Vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of groundborne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, and landslides) or manmade causes (e.g., explosions, machinery, traffic, trains, and construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, groundborne vibrations may be described by amplitude and frequency.

Existing Noise Conditions

The existing ambient noise sources in the vicinity of the proposed project locations include noise from outdoor activities, ranger stations, campgrounds, visitors, research staff, and residents. The noise produced from these sources includes people talking, equipment operating, wildlife, recreational activities, and waves crashing. Ambient noise levels typically range from 20 to 70 dBA.

Sensitive Receptors

There are a limited number of sensitive receptors at the proposed project locations. The Santa Barbara Island Ranger Station site (location 1) is located on an island that does not have year-round residents, but does accommodate NPS staff and visitors at a nearby campground. The two San Miguel Island sites are located on an island with a small number of NPS staff. The Santa Cruz Island sites are located on an island that is frequented by visitors and NPS staff. The Santa Rosa Island sites are on an island that accommodates NPS staff and visitors at a nearby campground.

Regulatory Setting

Federal Regulations

National Park Service

NPS protects and manages soundscapes through the policies, regulations, and laws listed below, which form the foundation of the Natural Sounds Program.

Organic Act. The Organic Act of 1916 established and authorized NPS “to conserve the scenery and the national and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations” (USC 1916).

Redwoods Act. The Redwoods Act of 1978 affirmed and clarified the NPS mission and authority. It states, “The authorization of activities shall be construed, and the protection, management and administration of these areas shall be conducted in light of the high public value and integrity of the National Park system and shall not be exercised in derogation of the values and purposes for which these various areas have been established” (NPS 1978).

NPS Management Policies 2006. NPS Management Policies are a tool to help NPS employees manage parks responsibly and make rational, well-informed decisions. Concerned citizens may also refer to these policies to better understand how NPS will meet its park management responsibilities under the 1916 Organic Act. Section 4.9 of the 2006 NPS Management Policies addresses the NPS commitment to protect natural soundscapes (NPS 2006a).

State and Local Regulations

There are no applicable state or local laws, ordinances, or regulations pertaining to noise.

Environmental Consequences

Thresholds of Significance

The project could have a significant impact on noise if the project would:

- Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies
- Expose persons to generation of excessive groundborne vibrations or groundborne noise levels
- Substantially and permanently increase ambient noise levels in the project vicinity above levels existing without the project
- Substantially and temporarily or periodically increase ambient noise levels in the project vicinity above levels existing without the project
- For a project located within an airport land use plan or, where such a plan has not been adopted, in an area within 2 miles of a public airport or public use airport, expose persons residing or working in the area to excessive noise levels
- For a project located in the vicinity of a private airstrip, expose persons residing or working in the area to excessive noise levels

Alternative 1 (No Project Alternative)

The No Project Alternative maintains the status quo at all 15 of the proposed telecommunication facility sites. This alternative provides a basis to compare the preferred alternative, to evaluate the magnitude of proposed changes, and to measure the environmental effects of those changes. Under this alternative, all telecommunication sites would remain in their current state, and no

telecommunication infrastructure would be installed. No new impacts to noise would be associated with the No Project Alternative.

Alternative 2 (Preferred Alternative)

Vibrations, Airports, and Airstrips

Neither the installation nor the operation and maintenance of the proposed project would produce vibrations or groundborne noise; therefore, this issue is not discussed further in this analysis.

Some of the proposed project locations are located within 2 miles of a non-public NPS-regulated airstrip. The installation crews would be at each project site for a short period of time (2-2.5 days). Airstrips would not be used for project installation. Exposure of workers to noise from non-public NPS-regulated airstrips would be negligible due to the distance and infrequency of use. There would be no impact from the use of the airstrips during project operation and maintenance.

- CEQA: No impact.
- NEPA: No impact.

Increase in Ambient Noise Levels and Noise Level Standards

Installation. Installation of telecommunication equipment upgrades at the 15 proposed project sites would be conducted in a rural area with scattered developed structures. Preparation for installation of the telecommunication equipment would require removal of existing equipment at some locations, followed by installation of new equipment. The equipment required for installation activities would include a ladder and hand tools, including battery-operated power tools. Individual equipment noise levels during the use of these power tools can range from 88 to 92 dB, as shown in Table 3.7-3. These noise levels could impact sensitive receptors (e.g., nearby campgrounds and visitor centers) including the typical noise attenuation rate of 6.0 dBA/DD.

Table 3.7-3: Noise Emissions from Powered Hand Tools

Tools	Average (dB)	National Institute for Occupational Safety and Health-recommended Exposure Limits
Drill (unloaded)	92	1.5 hours
Drill (ash block)	92	1.5 hours
Screwdriver (unloaded)	92	1.5 hours
Screwdriver (oak block)	88	3.5 hours

SOURCE: HAYDEN 2006

The 2006 NPS Management Plan does not identify an accepted maximum noise level for the project sites. However, the plan requires implementation of all actions that will prevent or minimize noise that, through frequency, magnitude, or duration, could adversely affect the natural soundscape or other park resources or values, or that exceed levels that have been identified through monitoring as being acceptable to or appropriate for visitor use at the sites being monitored (NPS 2006a).

The use of non-power tools identified above would create a minor increase, if any, in noise levels. Powered tool use would be limited in duration and frequency, and the noise generated from the use of these powered tools would be too limited to contribute to the overall average daily noise levels. As a result, this impact is considered less than significant under CEQA, and local, short-term, and minor under NEPA.

Special helicopter trips may also be required for delivery of materials, equipment, and installation crews when concessionaire or NPS-approved private charter boat trips are not available to accommodate the installation schedule. The helicopter trips could result in noise levels in excess of 100 dBA depending on various characteristics (e.g., helicopter speed and operational mode). It should be noted that although these levels would be fairly high, the duration and frequency of occurrence of these noise events are too short and infrequent to contribute to the overall average daily noise levels and helicopter trips for other purposes are common background noise on the islands. This impact is considered less than significant under CEQA, and local, short-term, and minor under NEPA.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

Operation and Maintenance. Operation of the proposed project would not result in the exposure of residents, visitors, or NPS staff to excessive noise levels. The only proposed noise-generating elements are the air conditioning units and fans that would be installed with the batteries. These air conditioning units and fans would generate noise levels of approximately 30 dBA, which in most locations is less than the existing ambient noise level. The noise generated by these air conditioning units and fans would be further reduced through containment within closed cabinets, and in the case of all-in-one units, behind screening fences. Maintenance activities would have a similar impact as discussed for installation. This impact is considered less than significant under CEQA, and local, short-term, and minor under NEPA.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

Mitigation Measures

No mitigation measures are required for the proposed project because installation and operation of the proposed telecommunication facilities would have a less than significant impact on noise without the need for mitigation.

Impairment

There would be no noise impacts associated with Alternative 1. Impacts from noise associated with the proposed project (Alternative 2) would be local, short-term, and minor; however, the short-term noise impacts at the 15 proposed project sites would not impair the enjoyment of the park for future generations, and impacts would be less than significant.

Cumulative Impact

Potential cumulative effects from noise are based on the analysis of projects in the Channel Islands Telecommunication Project area, presented in Appendix B. Other projects and plans proposed within the project area would be subject to evaluation of potential impacts to noise impacts and, where appropriate, to the implementation of Best Management Practices and project-specific mitigation measures and adherence to management practices. Noise impacts from the proposed project would be at a small and localized level. No other projects are proposed in the vicinity of the proposed project sites; therefore, there is no potential for a cumulative impact.

Conclusion Statement

Impacts from noise are summarized below.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

3.8 Cultural Resources

This section describes the existing cultural resources at each of the proposed project locations in the Channel Islands National Park and evaluates the potential impacts on cultural resources from the proposed project. The analysis focuses on impacts to cultural and historic resources from installation activities.

3.8.1 CULTURAL RESOURCES

Affected Environment

Regional Setting

Prehistoric

The majority of the archaeological work conducted in the northern Channel Islands, which comprise the Channel Islands National Park, has focused on prehistoric archaeology. The Channel Islands contain important archaeological remains dating from the earliest human occupations of the region through the historic period. The Arlington Springs skeleton found on Santa Rosa Island is one of the oldest human remains in North America, dating to approximately 10,000 BC (Erlandson *et al.* 2007; Glassow *et al.* 2007; Rick 2007). Archaeological evidence from Daisy Cave on San Miguel Island also points to early occupation of the Channel Islands with radiocarbon dates as early as 9500 BC. The discovery of slightly more recent artifacts from Daisy Cave (~8000 to 6600 BC) suggests that the Channel Islands attracted people with a well-developed maritime technology (Glassow *et al.* 2007).

Between 2000 BC and AD 1000, people established large coastal villages and more complex ceremonial practices with a diverse range of associated objects (e.g., beads, eagle and bear claws, bone whistles, and quartz crystals). The invention of the bow and arrow and the plank canoe were of particular importance, the latter leading to improved trade between the islands and the

mainland. These changes have led archaeologists to believe that the foundations of ethnographically documented Chumash and neighboring Tongva cultural patterns were laid during this period (Glassow 1997; Glassow *et al.* 2007; Munns and Arnold 2002).

During the period AD 1000 onward, the region saw increased social and economic complexity. By AD 1200, a hereditary-ranked leadership had emerged as evidenced by highly elaborate mortuary contexts. Sweat lodges were also common throughout the region, eventually conforming to a standardized appearance. Craft specialization is also evident from roughly AD 1200 onward, and included shell bead, microlithic, and canoe manufacture. Shell beads, for example, were widely produced on the Channel Islands and served as the basis of a highly developed regional exchange system that extended well beyond Chumash territory and that brought exotic goods from the mainland to the islands (Glassow *et al.* 2007; Kennett and Conlee 2002; Munns and Arnold 2002:145).

Historic

The historic period brought with it profound challenges for the native inhabitants of the Channel Islands and elsewhere, although the exact nature of the effects of Spanish colonialism for the Island Chumash is still somewhat vague. Most of the indigenous inhabitants of the Channel Islands abandoned their homes for the mainland by the 1820s as epidemic disease and associated loss of trading partners and cultural knowledge led to the consolidation of many remaining native people at Spanish mission sites (Kennett and Conlee 2002:163; Munns and Arnold 2002:133). Although the Euro-American colonization effectively ended the 12,000 years of native habitation of the Channel Islands, some Chumash Islanders maintained distinct native settlements on the mainland where they continued to practice many cultural traditions after the mission period (Johnson 1995).

Nonnative inhabitants began settling the islands during the Mexican and American periods, bringing with them domesticated farm animals. Sites from these eras retain many artifacts from ranching and agricultural practices, including building foundations, plantings, remnants of structures, stone-lined wells, rock retaining walls and fence lines, resource extraction pits, and disposal areas. Other historic resources include remnants of fishing and recreational camps, oil field development, and crop raising.

Twentieth century island history is well documented, with each island experiencing a distinct ownership and use pattern.

Santa Barbara Island. Santa Barbara Island's remote location and general lack of water caused it to be largely uninhabited until the 20th century, and there is little evidence of previous native settlements. A 1905 Executive Order reserved the island for lighthouse purposes, but it was not until 1928 and 1934 that the Bureau of Lighthouses built a small number of light towers on the island. The government also leased land to sheep ranchers until 1932.

Santa Barbara Island was designated as part of the Channel Islands National Monument in 1938, but the island was used by the military during World War II and was the site of a radar and missile tracking station into the 1960s.

San Miguel Island. The first known modern settler on San Miguel Island was former trapper George Nidever, who established a ranch with his sons on the federally owned island in 1850. Sheep, pigs, and cattle were raised on the island by Nidever and other ranchers. The Navy assumed jurisdiction over San Miguel Island in 1934, and in 1948 ordered the removal of all sheep and property of the then lessee Robert L. Brooks. Naval and other military occupation during the cold war led to the destruction or dismantlement of almost all buildings and structures dating back to the ranching period on the island. The U.S. Navy continues to own San Miguel Island, though NPS assumed management responsibility for the island in 1963 and has managed visitation to the island since 1980.

Santa Cruz Island. Sheep ranching and future diversification of agricultural and stock raising practices continued under different island owners. The French immigrant Justinian Caire employed French and Italian craftsmen to construct buildings reminiscent of his homeland's architecture during his time as sole company stockholder of the land development company and island owner, Santa Cruz Island Company. Caire's influence, both in building structure and impact of agricultural practices, can be seen at many project site locations (locations 6, 7, 9, and 10).

Island ownership went through a transition period after the death of Caire, eventually going to Edwin Stanton and the Gherini family. Stanton began cattle ranching on the island in 1939, using Prisoners Harbor (location 7) to hold the bulls of his cattle operation. He also built a new ranch house as part of Del Norte Ranch. Stanton's son Carey sold the family share of the island to TNC, which closed down the island's ranching operations and removed any remaining livestock after the death of Carey Stanton.

The Gherini family, which managed the east side of the island, focused on sheep ranching. They leased the land to William Peterson, who rehabilitated the dilapidated infrastructure and converted land into pasture. The leases were granted in the 1980s and 1990s, after which time the Gherini family sold their portion of the island to NPS.

TNC transferred approximately 8,000 acres of the island's isthmus to NPS in 2000. The transfer area included Rancho del Norte, Prisoners Harbor, and China Harbor. NPS currently owns the eastern 24 percent of Santa Cruz Island, while TNC owns the western 76 percent (JRP 2012).

Santa Rosa Island. Cattle and sheep ranching began on Santa Rosa Island as early as the 1840s when the Mexican government granted the island to members of the Carrillo family. The Carrillo family employed two Santa Barbara-based Americans, who brought the lucrative hide-and-tallow trade that flourished along the Santa Barbara mainland coast to the island. The enterprise reshaped the landscape with the addition of farm animals such as sheep, horses, and cattle and the construction of houses, corals, roads, fences, and paths.

After a few transfers of land ownership, Vail & Vickers bought the island in 1901 and leased portions of the island to oil companies, the U.S. military, and hunters. Vail & Vickers also phased out the sheep ranching in favor of cattle ranching. In 1986, Vail & Vickers sold the island to NPS; however, the family operation obtained a 25-year reservation of use and occupancy of 7 acres at Bechers Bay, and a special use permit for cattle ranching and commercial hunting. Cattle ranching on the island continued until 1998, when the cattle were all removed as the result of a lawsuit settlement agreement.

Cultural Resource Record Search

An Area of Potential Effect (APE) was determined for each proposed project location based on a vertical and horizontal assessment. Prehistoric and archaeological sites of significance were determined based on a record search conducted at the Central Coast Information Center and the South Central Coast Information Center of the California Historical Resources Information System (CHRIS). No in-field studies were completed for prehistoric or archaeological resources because limited ground disturbance would occur as part of the proposed project, and all ground disturbance would occur in areas that have been disturbed in the historic past.

A considerable number of archaeological resource sites are known to occur on all five islands, with a majority of these resources consisting of shell middens and lithic scatters (Glassow 2010). Table 3.8-1 lists the archaeological resources that are known to occur in proximity to the 15 proposed project locations.

Table 3.8-1: Previously Documented Archaeological Sites and Studies	
Location (project location no.)	Results
<i>Santa Barbara Island</i>	
Santa Barbara Island Ranger Station (1)	Two prehistoric sites appear to be within or near the APE. SBI 16 contains a shell midden with darkened soil and stone tool manufacturing debris (Greenwood and Bente 1977). SBI 19 is characterized as a prehistoric shell midden containing groundstone and stone tool manufacturing debris (Greenwood 1978).
<i>San Miguel Island</i>	
San Miguel Island Ranger Station (3)	SMI-4 contains a small prehistoric site and most likely a shell midden (Kritzman and Webber 1964).
San Miguel Island Marine Mammal Research Facility (4)	No previously documented historic or prehistoric archaeological resources have been noted in the project area. The area may have been surveyed by Snethcamp (1984) and Braje and Erlandson (2005).
<i>Santa Cruz Island</i>	
Santa Cruz Island Scorpion Housing (5)	SCRI-628 contains a prehistoric chert quarry (Jazwa and Perry 2004).
Santa Cruz Island Scorpion Ranch (6)	SCRI-423 contains a prehistoric midden site (Wilcoxin and Johnson 1982). The area was surveyed by Wilcoxin (1983) and Arnold (1993).
Santa Cruz Island Prisoners Harbor Day Use Area (7)	SCRI-254 is a shell midden with flake stone tool manufacturing debris (Howe 1973).
Santa Cruz Island Smugglers Adobe (9)	No previously documented prehistoric archaeological resources have been noted in the project area. The area was surveyed by Glassow (1974).
Santa Cruz Island Smugglers Kiosk (10)	SCRI-504 is located in the general area and was surveyed by Arnold (1993).

Table 3.8-1 (Continued): Previously Documented Archaeological Sites and Studies

Location (project location no.)	Results
<i>Santa Rosa Island</i>	
Santa Rosa Island Main Island Ranch (11)	No previously documented prehistoric archaeological resources have been noted in the project area. The area was surveyed by Morris (1988).
Santa Rosa Island Campground (12)	No previously documented prehistoric archaeological resources have been noted in the project area. The CHRIS results indicate that this area was not surveyed.
Santa Rosa Island Maintenance House (14)	No previously documented prehistoric archaeological resources have been noted in the project area. The CHRIS results indicate that this area was not surveyed.
Santa Rosa Island Johnson's Lee (15)	No previously documented prehistoric archaeological resources have been noted in the project area. The CHRIS results indicate that this area was not surveyed.
Santa Rosa Island Housing (16)	No previously documented prehistoric archaeological resources have been noted in the project area. The CHRIS results indicate that this area was not surveyed.
Santa Rosa Island Power Station (17)	No previously documented prehistoric archaeological resources have been noted in the project area. The area was surveyed by Morris (1988).
Santa Rosa Island Ranch Residence (18)	No previously documented prehistoric archaeological resources have been noted in the project area. However, NPS has indicated that known prehistoric archaeological resources are located in the vicinity of this project site (Huston, pers. comm. 2012). The CHRIS results indicate that this area was not surveyed.

SOURCE: PACIFIC LEGACY 2009

Historical Resource Field Surveys

A field survey for historical resources was performed on May 11 through May 13, 2009. The objective of the survey was to determine historical significance for the 15 project location APEs. Each of the APEs was visually inspected and specific elements that had the potential to be impacted by the proposed project were photographed and recorded. Santa Rosa Island Vehicle Maintenance Shop (Johnson's Lee, location 15) and the Santa Rosa Island Ranch Residence (location 18) were not included in the field survey because they were added to the project after the field survey had been completed. NPS subsequently provided contemporary photographs of the two project locations and confirmed that both properties had been previously determined ineligible for the National Register of Historic Places (NRHP), both individually and as a potential contributor to the Santa Rosa Island Ranch District.

Results of Historic Resource Literature Search and Field Surveys

The historic resource literature search and field surveys determined that 12 of the 15 proposed project sites are located within two districts that are eligible to be listed in the NRHP. These two districts are described in detail in the November 2012 Historical Resources Inventory and Evaluation Report prepared by JRP (Appendix C), and are summarized in Table 3.8-2.

Table 3.8-2: Districts Previously Listed in or Eligible for Listing in the National Register of Historic Places

District Name	Period of Significance	CHR ¹ Status Code	Project Locations within District APE
Santa Cruz Island Ranching District	1880-1952	2S2 ²	5, 6, 7, 9, 10
Santa Rosa Island Ranching District	1873-1955	2S2 ²	11, 12, 14, 15, 16, 17, 18
¹ California Historic Register ² "Individual property determined eligible for NR by a consensus through Section 106 process. Listed in the CR."			

SOURCE: JRP 2012

The historic resource literature search and field surveys determined that the remaining three proposed project sites are located in districts that have been determined to be ineligible for listing in the NRHP. These three ineligible districts are described in detail in the November 2012 Historical Resources Inventory and Evaluation Report prepared by JRP (Appendix C), and are summarized in Table 3.8-3.

Table 3.8-3: Districts Determined to be Ineligible for Listing in the National Register of Historic Places

District Name	Year Built	CHR ¹ Status Code	Project Location within District APE
Santa Barbara Island Ranger Station	1991	6Z ²	1
Santa Miguel Island Ranger Station	1996	6Z ²	3
Santa Miguel Island Marine Mammal Research Station	2004	6Z ²	4
¹ California Historic Register ² "Found ineligible for NR, CR, or Local designation through survey evaluation."			

SOURCE: JRP 2012

The resource literature search also determined that San Miguel Island, Santa Barbara Island, and a portion of Santa Cruz Island are listed in the NRHP as archaeological districts. Proposed project locations 1, 3, 4, 5, 6, 7, 9, and 10 are located within these archaeological districts.

Regulatory Setting

Federal Regulations

National Historic Preservation Act of 1966, Section 106 (16 USC 470, as amended)

Section 106 of the NHPA regulates projects on federal land that may have an effect on historic properties that are listed or eligible for inclusion on the NRHP. Cultural properties that could be discovered on any of the proposed project sites as a result of implementation of the project would be subject to review under Section 106 of the NHPA. The lead agency is required to identify historic properties within the APE, render determinations of eligibility and findings of effect, and consult with the State Historic Preservation Officer and the Advisory Council on Historic Preservation regarding agency determinations and findings. The criteria for determining eligibility for listing on the NRHP are:

The quality of significance in American history, architecture, archaeology, engineering, and culture as present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:

- a. Are associated with events that have made significant contribution to the broad patterns of our history;
- b. Are associated with the lives of persons significant in our past;
- c. Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d. Have yielded, or may be likely to yield, information important in prehistory or history.

Archaeological Resources Protection Act of 1979 (ARPA; 16 USC 470aa-470ll)

The Archaeological Resources Protection Act (ARPA) prohibits unauthorized excavation of archaeological sites on federal land, as well as other acts involving cultural resources, and implements a permitting process for excavation of archaeological sites on federal or Indian lands (see regulations at 43 CFR 7). ARPA also provides civil and criminal penalties for removal of, or damage to, archaeological and cultural resources.

Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001 et seq.; see regulations at 43 CFR 10)

NAGPRA provides for the protection and repatriation of Native American human remains and cultural items and requires notification of the relevant Native American tribe upon accidental discovery of cultural items.

American Indian Religious Freedom Act of 1979 (AIRFA; 42 USC 1996)

The American Indian Religious Freedom Act (AIRFA) preserves for Native Americans and other indigenous groups the right to express traditional religious practices, including access to sites under federal jurisdiction. Regulatory guidance for AIRFA is lacking, although most land managing federal agencies have developed internal procedures to comply with AIRFA.

Executive Order No. 13007: Indian Sacred Sites

Executive Order 13007 directs federal agencies with statutory or administrative responsibility for the management of federal lands, to the extent practicable and permitted by law, to accommodate access to and ceremonial use of Native American sacred sites by Native American religious practitioners and avoid adversely affecting the physical integrity of such sacred sites.

National Environmental Policy Act (42 USC Sections 4321-4327)

NPS is required to consider potential environmental impacts and appropriate mitigation measures for projects with federal agency involvement. The proposed project and EA must be consistent with the NPS Director's Order 28 for Cultural Resources Management.

State Regulations

California Register of Historic Resources

The California Register of Historic Resources (CRHR) (Section 5024.1) is a listing of those properties that are to be protected from substantial adverse change, and it includes properties that are listed in, or have been formally determined to be eligible for listing in, the NRHP, State Historical Landmarks, and eligible Points of Historical Interest. A historical resource may be listed in the CRHR if it meets one or more of the following criteria:

- It is associated with events that have made a significant contribution to the broad patterns of local or regional history or cultural heritage of California or the United States
- It embodies distinctive characteristics of a type, period, or method of construction, or represents the work of a master or possesses high artistic values
- It has yielded or has the potential to yield information important in the prehistory or history of the local area, California, or the nation

Public Resources Code

Section 21084.1. Public Resources Code (PRC) Section 21084.1 stipulates that any resource listed in, or eligible for listing in, the CRHR is presumed to be historically or culturally significant. Resources listed in a local historic register or deemed significant in a historical resources survey (as provided under PRC Section 5024.1g) are presumed historically or culturally significant unless the preponderance of evidence demonstrates they are not. A resource that is not listed in or determined to be eligible for listing in the CRHR, is not included in a local register of historic resources, or is not deemed significant in a historical resource survey may nonetheless be historically significant. This provision is intended to give the lead agency discretion to determine that a resource of historic significance exists where none had been identified before, and to apply the requirements of PRC Section 21084.1 to properties that have not previously been formally recognized as historic.

Section 21083.2. PRC Section 21083.2 stipulates that a project that may adversely affect a unique archaeological resource requires the lead agency to treat that effect as a significant environmental effect. When an archaeological resource is listed in or is eligible to be listed in the CRHR, PRC Section 21084.1, discussed above, requires that any substantial adverse effect to that resource be considered a significant environmental effect. PRC Sections 21083.2 and 21084.1 operate independently to ensure that potential effects on archaeological resources are considered as part of a project's environmental analysis. Either of these benchmarks may indicate that a project may have a potential adverse effect on archaeological resources.

Local Regulations

There are no applicable local laws, ordinances, or regulations pertaining to cultural resources.

Environmental Consequences

Thresholds of Significance

The project could have a significant impact on cultural resources if the project would:

- Cause a substantial adverse change in the significance of an archaeological resource as defined in section 15064.5 of CCR
- Cause a substantial adverse change in the significance of a historical resource as defined in section 15064.5 of CCR
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature
- Disturb any human remains, including those interred outside of formal cemeteries

Alternative 1 (No Project Alternative)

The No Project Alternative maintains the status quo at all 15 of the proposed telecommunication facility sites. This alternative provides a basis to compare the preferred alternative, to evaluate the magnitude of proposed changes, and to measure the environmental effects of those changes. Under this alternative, all telecommunication sites would remain in their current state, and no telecommunication infrastructure would be installed. No new impacts to cultural resources would be associated with the No Project Alternative.

Alternative 2 (Preferred Alternative)

Prehistoric and Archaeological Resources Impacts

Installation. Installation activities at each of the project locations could involve a minimal amount of shallow ground disturbance near existing infrastructure and using hand tools. There is a possibility that inadvertent damage could occur to a previously undiscovered or existing prehistoric or archaeological resources as a result of installation activities, particularly at locations 1, 3, 4, 5, 6, 7, 9, and 10, which are located in archaeological districts listed in the NRHP.

Implementation of Mitigation Measure CR-1 at each project location where ground-disturbing activities would occur would minimize effects. The measure requires archaeological resource sensitivity training for all construction workers, monitoring of ground-disturbing activities by an

NPS-approved archaeological monitor, and provides direction in the unlikely event that previously unknown archaeological resources are discovered during construction activities.

- CEQA: Less than significant impact with mitigation.
- NEPA: Local, permanent, and minor impact with mitigation.

Operation and Maintenance. Operation and maintenance activities would not involve ground disturbance at any of the project locations and, therefore, these activities would have no potential to cause inadvertent damage to prehistoric or archaeological resources.

- CEQA: No impact.
- NEPA: No impact.

Human Remains

Installation. It is unlikely that human remains would be encountered during installation activities since very minimal ground disturbance is proposed and where it is proposed, the digging would be shallow and performed by hand. In the event that human skeletal remains are discovered anywhere in the project area, because the project is located on federally owned and administered lands, provisions set out in NAGPRA and its implementing regulations at 43 CFR Part 10 would be implemented. In addition, implementation of Mitigation Measure CR-1 would require that an NPS-approved archaeological monitor be present during ground-disturbing activities to ensure that human remains are not disturbed. Implementation of the NAGPRA provisions and Mitigation Measure CR-1 would ensure that project installation would have no impacts on human remains.

- CEQA: Less than significant impact with mitigation.
- NEPA: Local, permanent, and minor impact with mitigation.

Operation and Maintenance. Operation and maintenance activities would not involve ground disturbance at any of the project locations and, therefore, these activities would have no potential to encounter human remains.

- CEQA: No impact.
- NEPA: No impact.

Historic Resources Impacts

Installation. Installation activities would have the potential to affect historic resources within the two potentially historic districts located on Santa Cruz and Santa Rosa Islands and identified in Table 3.8-2. The potential impacts of installation activities are discussed by island and project location below.

Santa Cruz Island. The eastern end and isthmus of Santa Cruz Island comprise the Santa Cruz Island Ranching District, a 14,000-square-foot area that is eligible for listing in NRHP. Contributing elements, as identified in the 2004 Santa Cruz Island Cultural Landscapes Inventory (CLI), include natural systems and features, views and vistas, spatial organization, topography, vegetation, buildings and structures, circulation, small-scale features and constructed water features, and clusters of buildings and structures. Several of the clusters contributing to the NRHP-

eligible district are sites for the proposed project, including locations 6, 7, 9, and 10. Table 3.8-4 lists which elements of the proposed project occur on contributing and non-contributing buildings and structures in the historically significant district.

Location No. and Name	Name of Historic District or Cluster (if applicable)	Buildings or Structures to be Involved in Installation	Historical Significance of Installation Site
5. Scorpion Housing Area	N/A	N/A	Non-contributing
6. Scorpion Ranch	Scorpion Ranch Cluster	N/A	Non-contributing
7. Prisoners Harbor Day Use Area	Prisoners Harbor Cluster	Information kiosk and disturbed area near rebuilt pier	Non-contributing
9. Smugglers Adobe	Smugglers Ranch Cluster	Restroom building	Non-contributing
10. Smugglers Kiosk	Smugglers Ranch Cluster	Information kiosk	Non-contributing

SOURCE: JRP 2012

Location 5: Santa Cruz Island Scorpion Housing Area. Installation activity at location 5, a NPS-developed, non-contributing cluster of structures, would have no direct impact on historically significant buildings or the district. The proposed all-in-one unit would be enclosed within screening fencing that would be designed to be compatible with existing fencing in the project vicinity. The proposed GSM payphone would be relatively small in size and would blend in with the modern NPS infrastructure. The location of the Scorpion Housing Area is within a small bowl surrounded by hills, which provides a visual barrier to any of the historically sensitive resources, including nearby Scorpion Ranch; therefore, indirect impacts would be negligible as well. The project would not harm or materially alter the physical characteristics of the Santa Cruz Island Ranching District.

- CEQA: Less than significant impact.
- NEPA: Local, permanent, and minor impact.

Location 6: Santa Cruz Island Scorpion Ranch. Location 6 is within the Scorpion Ranch cluster, a contributing historical resource. The proposed all-in-one unit would be enclosed within screening fencing that would be designed to be compatible with existing fencing in the project vicinity. The proposed project elements would not adversely impact the historical integrity of the cluster or the Santa Cruz Island Ranching District. Though the proposed telecommunication equipment would introduce new visual elements, indirect impacts on sensitive resources would be less than significant due to the relatively small size of the equipment and the minimal visual change. The placement of the payphone as a standalone feature by the existing corral would also shield it from

view of the other Scorpion Ranch buildings, making any visual impact from the installation negligible. The installation of project components at location 6 would have a less than significant impact on the historical resource.

- CEQA: Less than significant impact.
- NEPA: Local, permanent, and minor impact.

Location 7: Santa Cruz Island Prisoners Harbor Day Use Area. Location 7 is within the Prisoners Harbor cluster, a contributing historical resource. The proposed all-in-one unit would be enclosed within screening fencing that would be designed to be compatible with existing fencing in the project vicinity. The proposed project elements would not adversely impact the historical integrity of the cluster or the Santa Cruz Island Ranching District. The installation of the payphone as a standalone structure near the existing, non-contributing kiosk would have a negligible impact on the viewshed because it would blend in with the modern NPS infrastructure and would not materially alter existing conditions. The installation of project components at location 7 would have a less than significant impact on the historical resource.

- CEQA: Less than significant impact.
- NEPA: Local, permanent, and minor impact.

Locations 9 and 10: Santa Cruz Island Smugglers Adobe and Smugglers Kiosk. The Smugglers Adobe and Smugglers Kiosk are within the Smugglers Ranch cluster, a historically significant resource; however, activities associated with locations 9 and 10 would not directly or indirectly impact the eligibility of the historical resource. All proposed equipment installations would be added to existing, non-contributing structures and would not create any alternations to the character-defining elements of historically significant buildings.

The proposed project would add new visual elements to the historic district; however, these additions are relatively small in scale. At location 9, the new project elements would be installed behind the NPS restroom. The ten new solar panels would be mounted onto a new framework placed on the hillside behind the NPS restroom and hidden from view.

Location 10 involves the installation of a standalone GSM payphone near the non-contributing information kiosk. The visual impact of this payphone would be negligible because it would be located near the beach and approximately 1,000 feet east of the ranch house. The standalone payphone would be roughly the same height as the kiosk and, therefore, would not result in a net increase in visual elements that could affect the eligibility of the site.

The proposed telecommunication equipment would not interfere with the vantage points from the focal point of the Smugglers Ranch cluster, which is the main façade. The proposed project would not materially change the viewshed that could affect the eligibility of the site. The project would not alter the characteristics of the Smugglers Ranch cluster that qualify it as historically significant.

- CEQA: Less than significant impact.
- NEPA: Local, permanent, and minor impact.

Santa Rosa Island. The entire land mass of Santa Rosa Island (approximately 53,634 acres) is part of the Santa Rosa Island Ranching District, which is eligible for listing in NRHP. The contributing features of the district, as identified in the 2002 Santa Rosa Island Ranching District CLI, include natural systems and features, views and vistas, spatial organization, topography, vegetation, buildings and structures, circulation, small-scale features and constructed water features, and clusters of buildings and structures. Only one of the clusters includes a contributing element to the historic district that could be impacted by the project: location 11, the Main Ranch. Installation activities at this location would be confined to non-contributing buildings within the historic district. Table 3.8-5 lists the project locations on Santa Rosa Island and their historical significance.

Table 3.8-5: Santa Rosa Island Project Locations, Elements, and Historical Significance

Location No. and Name	Name of Historic District or Cluster (if applicable)	Buildings or Structures to be Involved in Installation	Historical Significance of Installation Site
11. Main Ranch	Ranching District Main Ranch Cluster	N/A (handheld phones or desk phones in building interiors)	Non-contributing
12. Campground	Ranching District Main Ranch Cluster	N/A	Non-contributing
14. Maintenance Office	Ranching District Main Ranch Cluster	Maintenance office	Non-contributing
15. Johnson's Lee	Ranching District Main Ranch Cluster	Vehicle and equipment storage structure	Non-contributing
16. Housing	Ranching District Main Ranch Cluster	Garage	Non-contributing
17. Power Station	Ranching District Main Ranch Cluster	On and behind the generator building	Non-contributing
18. Ranch Residence	Ranching District Main Ranch Cluster	Residence	Non-contributing

SOURCE: JRP 2012

Location 11: Santa Rosa Island Main Ranch. Location 11 is in the historically contributing Main Ranch cluster; however, the proposed project would cause no substantial adverse impact to the resource because no damage or significant alteration would occur to the character-defining elements of the district. Location 11 would involve the installation of GSM wireless desk phones inside existing buildings and would, therefore, have no impact on the historic eligibility of the building. The proposed project elements for location 11 would not substantially damage, alter, or modify the historically significant components of the Santa Rosa Island Ranching District.

- CEQA: Less than significant impact.
- NEPA: Local, permanent, and minor impact.

Location 12: Santa Rosa Island Campground. The Santa Rosa Island Campground is NPS-developed and is a non-contributing component of the Santa Rosa Island Ranching District. Proposed activities at location 12 would have no substantial adverse impact on any historically significant resources. The only equipment that would be installed at location 12 would be a standalone GSM payphone, which would be located at the entrance to the campground area. The GSM payphone would be relatively small in size and would blend in with the modern NPS infrastructure. The environmental features surrounding the campground, namely Water Canyon, a long, narrow bowl surrounded by steep hills, prevents the campground from being seen by any contributing clusters, including the nearest contributing location, the Main Ranch, which is located just over 1 mile to the east. Proposed location 12 would not alter the historical resources because of its placement in a previously disturbed area on a non-contributing structure and its distance from the nearest contributing clusters.

- CEQA: Less than significant impact.
- NEPA: Local, permanent, and minor impact.

Location 14: Santa Rosa Island Maintenance Office. Location 14 is in the NPS-developed shop/nursery complex cluster and is a non-contributing component of the Santa Rosa Island Ranching District. The proposed project would not alter any historical resource at this location. The proposed all-in-one unit would be enclosed within screening fencing that would be designed to be compatible with existing fencing in the project vicinity. The proposed GSM payphone would be relatively small in size and would blend in with the modern NPS infrastructure.

The proposed project also would not cause any indirect impacts to the historical resources at location 14, despite introducing new visual elements. The hills surrounding Windmill Canyon where the site is located would prevent the proposed telecommunication equipment from being seen by any contributing clusters, including the nearest location, the Main Ranch, which is located approximately 0.5 mile to the southwest. Proposed location 14 would not alter the potential eligibility of any of the historic resources because of its placement in a previously disturbed area on non-contributing structures and its distance from the nearest contributing clusters.

- CEQA: Less than significant impact.
- NEPA: Local, permanent, and minor impact.

Location 15: Santa Rosa Island Johnson's Lee. Proposed project activities at location 15 would include installation of all-in-one unit that would be enclosed within screening fencing that would be designed to be compatible with existing fencing in the project vicinity. The project would also involve installation of a GSM payphone that would be relatively small in size and would blend in with the modern NPS infrastructure. The proposed project would not have any direct impacts on any historical resources.

The proposed project would not alter the eligibility of any historical resources despite introducing new visual elements to the area. Johnson's Lee is located at the south side of the island and is surrounded by hills, preventing the installations from being seen by any contributing clusters, including China Line Camp and Wreck Line Camp, which are located approximately 2 miles to the west and east, respectively. Proposed location 15 would not impact on cultural resources because of its placement in a previously disturbed area on non-contributing structures and its distance from the nearest contributing clusters.

- CEQA: Less than significant impact.
- NEPA: Local, permanent, and minor impact.

Location 16: Santa Rosa Island Housing. Location 16 is in the NPS-developed, non-contributing Santa Rosa Island Housing Complex cluster. Proposed project activities at location 16 would include installation of all-in-one unit that would be enclosed within screening fencing that would be designed to be compatible with existing fencing in the project vicinity. The project would also involve installation of a GSM payphone that would be relatively small in size and would blend in with the modern NPS infrastructure. The proposed project would not alter the potential eligibility of any of the historic resources at this location.

The proposed project would not alter the potential eligibility of any historic resources despite introducing new visual elements to the area. The hills and valleys surrounding the proposed project's location in Windmill Canyon prevent the proposed telecommunication equipment from being seen by any contributing clusters, including the nearest location, the Main Ranch. The visual impact of the proposed project on the historic district would be negligible. Proposed location 16 would not alter the potential eligibility of any historic resources because of its placement in a previously disturbed area on non-contributing structures and its distance from the nearest contributing clusters.

- CEQA: Less than significant impact.
- NEPA: Local, permanent, and minor impact.

Location 17: Santa Rosa Island Power Station. Proposed project activities at location 17 would include equipment installation at the NPS-developed, non-contributing generator building (power station) cluster. The proposed project would not cause any significant direct impacts to a historical resource at this location. All proposed telecommunication equipment would be relatively small in size, confined to the existing generator building, and would blend in with the modern NPS infrastructure. The largest feature would be the removal of the 20 existing NPS solar panels and the installation of 20 new solar panels on the roof on the south side of the Santa Rosa Island Power

Station. This solar panel configuration would not be visible from any vantage point within the Main Ranch cluster.

The generator complex is located at the southern end of the Main Ranch cluster and is within view of several contributing elements; however, the impact of the proposed installed components would be minor and less than significant. The generator complex is located on the periphery of the contributing Main Ranch cluster and 500 feet from the Upper Ranch House, the nearest contributing building. The sightlines between the generating cluster and the Upper Ranch House are partially blocked by the storage building, a non-contributing element from the World War II era. Proposed location 17 would not alter the potential eligibility of any historic resources because of its placement in a previously disturbed area on non-contributing structures and its distance from the nearest contributing clusters.

- CEQA: Less than significant impact.
- NEPA: Local, permanent, and minor impact.

Location 18: Santa Rosa Island Ranch Residence. Location 18 is in the NPS-developed, non-contributing Ranching District Main Ranching Cluster. The proposed project would not cause any significant direct impacts to a historical resource at this location. The only telecommunication equipment proposed at location 18 is a GSM payphone that would be relatively small in size, confined to the existing residence, and would blend in with the modern NPS infrastructure.

The proposed project would not alter the potential eligibility of any historic resources despite introducing a new visual element to the area. The ranch residence is only a few hundred feet southeast of the Main Ranch, but the existing shielding vegetation and the orientation of the proposed telecommunication equipment at the ranch residence would prevent the proposed GSM payphone from being seen by any contributing clusters, including the nearest location, the Main Ranch. The visual impact of the proposed project on the historic district would be negligible. Proposed location 18 would not alter the potential eligibility of any historic resources because of its placement in a previously disturbed area on non-contributing structures and its distance from the nearest contributing clusters.

- CEQA: Less than significant impact.
- NEPA: Local, permanent, and minor impact.

Santa Barbara Island and San Miguel Island. There would be no potential for impacts to historical resources during installation on Santa Barbara Island (location 1) and San Miguel Island (locations 3 and 4) because there is no evidence of historical resources in the associated APEs.

- CEQA: No impact.
- NEPA: No impact.

Operation and Maintenance. Impacts from operation and maintenance activities at all project locations are similar to impacts from installation. Installed elements would have a local, permanent, but less than significant impact on historic resources because of their placement in

previously disturbed areas on non-contributing structures and their distance from the nearest contributing clusters.

- CEQA: Less than significant impact.
- NEPA: Local, permanent, and minor impact.

Mitigation Measure

Mitigation Measure CR-1: To minimize the potential for significant impacts on previously known or as of yet undiscovered archaeological or historic properties and/or features or human remains during any ground-disturbing activities, the following measures shall be required:

- a. Prior to installation, if deemed appropriate by the NPS Park Archaeologist, sensitivity training of all contractors and construction workers in the project area shall be conducted. Workers shall be educated in the recognition of archaeological resources (e.g., historic and prehistoric artifacts typical of the general area), procedures to report such discoveries, NPS no-collection policies, and CITC construction protocols to ensure that installation activities avoid impacts to potentially significant cultural resources. The NPS Park Archaeologist shall have the authority to halt or redirect the installation activity if potentially significant archaeological features or materials are uncovered. Evidence of compliance with NPS sensitivity training requirements must be submitted to CPUC prior to installation activities.
- b. During installation activities and if deemed necessary by the NPS Park Archaeologist, an NPS-approved archaeological monitor shall be present during ground-disturbing activities to ensure that archaeological artifacts, cultural deposits, and human remains are not disturbed.
- c. In the event that as of yet undiscovered archaeological artifacts, cultural deposits, or human remains are encountered during installation, all work shall stop in the immediate vicinity of the find and the NPS Park Archaeologist shall be notified at the earliest opportunity. As appropriate, additional cultural resources surveys shall be conducted to inventory the cultural resources within areas disturbed during installation. Installation activities shall not resume until the NPS Park Archaeologist deems the cultural resource has been appropriately documented and protected. At the NPS Park Archaeologist's discretion, the location of ground-disturbing activities may be relocated elsewhere on the project site to avoid cultural resources.

Impairment

There would be no impacts to cultural resources associated with Alternative 1. Impacts associated with the proposed project (Alternative 2) are expected to be local, permanent, and minor; however, impacts at all of the 15 proposed project locations would not impair or destroy the cultural and historic resources for future generations. Adherence to applicable regulations and implementation of the mitigation measure would prevent impairment of park resources, and impacts would be less than significant.

Cumulative Impacts

Potential cumulative effects to cultural resources are based on the analysis of projects in the Channel Islands Telecommunication Project area, presented in Appendix B. Other projects and plans proposed within the project area would be subject to evaluation of potential impacts to cultural resources, and where appropriate, to the implementation of Best Management Practices and project-specific mitigation measures and adherence to management practices. Impacts to cultural resources from the proposed project would be at a small and localized level. No other projects are proposed in the vicinity of the proposed project sites; therefore, there is no potential for a cumulative impact.

Conclusion

Impacts to cultural resources are summarized below.

- CEQA: Less than significant impact with mitigation.
- NEPA: Local, permanent, and minor impact with mitigation.

3.9 Social Resources

The analysis of social resources addresses land use, visitor experience, and recreation; visual and scenic resources; and traffic and transportation.

3.9.1 LAND USE, VISITOR EXPERIENCE, AND RECREATION

This section describes the existing land use designation, the current visitor experience, and recreation activities at each of the proposed project locations on the Channel Islands National Park and evaluates the potential impacts on land use, visitor experience, and recreation from the proposed project. The analysis focuses on impacts to current land uses that affect visitor experience and recreation.

Affected Environment

Land Use

Zone Designations

Management zoning is used by NPS to prescribe areas where certain desired conditions are to be achieved and where certain uses may be provided. Management zoning designations for the 15 proposed project sites are outlined in Table 3.9-1.

Permits are required for many types of activities on federal lands. The proposed project would require a right-of-way permit that provides an easement for utilities not owned by NPS but that serve the NPS (NPS 2000). This permit would allow the proposed project to be installed in any zone designation.

Residential Uses

There are no full-time private residences on the portions of the islands managed by NPS. The only residential uses on the islands are housing accommodations for NPS staff and researchers and campgrounds for island visitors.

Table 3.9-1: Management Zoning Designations for Proposed Project Sites

Zone	Project Sites
<p>Development Zone</p> <p>Structures and facilities considered essential for management needs and visitor use are placed in the development zone. The low-intensity use policy generally precludes the need for extensive development.</p>	<ul style="list-style-type: none"> • Santa Barbara Island Ranger Station • San Miguel Island Ranger Station • San Miguel Island Marine Mammal Research Facility • Santa Cruz Island Scorpion Ranch • Santa Cruz Island Smugglers Adobe • Santa Rosa Island Maintenance Office
<p>Natural Zone</p> <p>The management emphasis in the natural zone is on conservation of natural resources and processes. Uses that do not adversely affect these resources and processes may be accommodated. Most of the park lands and waters are classified in this zone.</p>	<ul style="list-style-type: none"> • Santa Cruz Island Scorpion Housing Area
<p>Natural Zone, Protected Natural Area</p> <p>The management emphasis in this zone is to perpetuate ecological values, with or without human intrusion; these lands are set aside for strict protections because of unusual resource fragility or ecological significance.</p>	<ul style="list-style-type: none"> • Santa Cruz Island Smugglers Kiosk
<p>Historic Zone, Preservation/Adaptive Use Area</p> <p>Historically significant structures in the preservation/adaptive use subzone may be used, with necessary modification, for public or administrative activities or function as long as the qualities that make these resources and their settings historically significant are maintained.</p>	<ul style="list-style-type: none"> • Santa Rosa Island Main Ranch • Santa Rosa Island Power Station • Santa Rosa Island Housing • Santa Rosa Island Campground • Santa Rosa Island Johnson's Lee • Santa Rosa Island Ranch Residence
<p>Not Zoned</p> <p>Unzoned land is not identified as part of NPS-managed land in the 1985 Channel Islands Management Plan.</p>	<ul style="list-style-type: none"> • Santa Cruz Island Prisoners Harbor Day Use Area

SOURCE: NPS 1985

Visitor Experience

Public visitors are allowed on all of the NPS-managed islands. In 2008, the Channel Islands National Park had over 332,000 recreational visitors. Visitors use the area as a recreational and educational destination. The park offers a wide variety of activities, which are discussed in more detail below. Visitors travel to the area and participate in many of the available recreational activities because the islands provide a natural, undeveloped setting.

Recreation

Public visitors generally are interested in visiting the islands to participate in a variety of recreational activities (NPS 2007). These activities include:

- Hiking and picnicking
- Camping and backcountry camping
- Boating and kayaking
- Surfing, diving, snorkeling, and fishing
- Tidepooling and bird, whale, seal, and sea lion watching

Wildflower viewing, photography, and nature study

Regulatory Setting

Federal Regulations

National Park Service

NPS protects and manages recreation and land and visitor use through the policies, regulations, and laws listed below.

Organic Act. The Organic Act of 1916 established and authorized NPS “to conserve the scenery and the national and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations” (USC 1916).

Redwoods Act. The Redwoods Act of 1978 affirmed and clarified the NPS mission and authority. It states, “The authorization of activities shall be construed, and the protection, management and administration of these areas shall be conducted in light of the high public value and integrity of the National Park system and shall not be exercised in derogation of the values and purposes for which these various areas have been established” (NPS 1978).

Channel Islands National Park General Management Plan. The Channel Islands National Park General Management Plan of 1985 provides guidance regarding the management of natural and cultural resources, the amount of visitor use in the park, and the level of development required to support visitor and management activities (NPS 1985). The relevant regulations from the management plan are outlined in Table 3.9-1.

State and Local Regulations

There are no applicable state or local laws, ordinances, or regulations pertaining to land use, visitor experience, and recreation.

Environmental Consequences

Thresholds of Significance

The project could have a significant impact on land use, visitor experience, and recreation if the project would:

- Physically divide an established community
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal programs, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect
- Conflict with any applicable habitat conservation plan or natural community conservation plan
- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated
- Use recreational facilities or require construction or expansion of recreational facilities that might have an adverse physical effect on the environment
- Physically degrade existing recreational resources

Alternative 1 (No Project Alternative)

The No Project Alternative maintains the status quo at all 15 of the proposed telecommunication facility sites. This alternative provides a basis to compare the preferred alternative, to evaluate the magnitude of proposed changes, and to measure the environmental effects of those changes. Under this alternative, all telecommunication sites would remain in their current state, and no telecommunication infrastructure would be installed. No new impacts to land use, visitor experience, or recreation would be associated with the No Project Alternative.

Alternative 2 (Preferred Alternative)

Land Use

Installation, operation, and maintenance of the proposed project would not conflict with current land uses or land use plans. The telecommunication equipment would be installed on existing structures and would not conflict with any habitat or natural community conservation plan. The installation and operation of the equipment would have a less than significant impact on the natural and historical value of the surrounding area (refer to Section 3.8 for further discussion of impacts to cultural resources and appropriate mitigation measures). The project site locations where equipment would be installed are rural islands where communities are not established and, therefore, no physical division of an established community would occur. The proposed telecommunication use can be permitted in any NPS management zone with a right-of-way permit.

- CEQA: No impact.
- NEPA: No impact.

Visitor Experience

Installation of the proposed telecommunication facilities would require a two-person crew at each project location for 2 to 2.5 days. The presence of the installation crew would negligibly impact the day use carrying capacity at each island. The visual presence of the equipment during operation would not impact visitor experience as the new telecommunication facilities would largely blend in with the existing structures at each of the proposed project sites (refer to Section 3.9.2 for further

discussion of visual impacts). Impacts to visitor experience from installation, operation, and maintenance would be less than significant, and have local, long-term, and minor impacts.

- CEQA: Less than significant impact.
- NEPA: Local, long-term, and minor impact.

Recreation

Installation, operation, and maintenance of the proposed project would not cause an increase in the use of the park or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated. The installation crew would not be present at a project location long enough to cause degradation to the surrounding recreational resources. The proposed project would not require the construction or expansion of recreational facilities and would not physically degrade existing recreational facilities.

- CEQA: Less than significant impact.
- NEPA: Local, short term, and minor impact.

Mitigation Measures

No mitigation measures are required for the proposed project because installation and operation of the proposed telecommunication facilities would have a less than significant impact on land use, visitor experience, and recreation without the need for mitigation.

Impairment

There would be no impacts to land use, visitor experience, and recreation associated with Alternative 1. Impacts to land use, visitor experience, and recreation associated with the proposed project (Alternative 2) would be local, short-term, and minor; however, the short-term land use, visitor experience, and recreation impacts at the 15 proposed project sites would not impair the enjoyment of the park for future generations, and impacts would be less than significant.

Cumulative Impacts

Potential cumulative effects to land use, visitor experience, and recreation are based on the analysis of projects in the Channel Islands Telecommunication Project area, presented in Appendix B. Other projects and plans proposed within the project area would be subject to evaluation of potential impacts to land use, visitor experience, and recreation, and where appropriate, to the implementation of Best Management Practices and project-specific mitigation measures and adherence to management practices. Land use, visitor experience, and recreation impacts from the proposed project would be at a small and localized level. No other projects are proposed in the vicinity of the proposed project sites; therefore, there is no potential for a cumulative impact.

Conclusion Statement

Impacts to land use, visitor experience, and recreation are summarized below.

- CEQA: Less than significant impact.
- NEPA: Local, long-term, and minor impact.

3.9.2 VISUAL/SCENIC RESOURCES

This section describes the existing visual and scenic resources at each of the proposed project locations on the Channel Islands National Park and evaluates the potential impacts on visual and scenic resources from the proposed project.

Affected Environment

Existing Visual and Scenic Resources

Photographs of each of the proposed project locations are included in Appendix A.

Location 1 – Santa Barbara Island Ranger Station

This site includes a ranger station office, a maintenance shop, and ground-mounted solar panels. The building also has a wall-mounted VSAT dish antenna. The facility is located on a gentle slope on top of a seashore cliff. No other facilities are in the immediate vicinity.

Location 3 – San Miguel Island Ranger Station

This site includes an NPS office, residential accommodations, and a four-person research bunkhouse. A solar heating system is located on the roof of the ranger station. The isolated building is located about 0.5 mile from shore on a gently sloped hillside and is surrounded by natural terrain.

Location 4 – San Miguel Island Marine Mammal Research Facility

This site includes a NOAA office that contains a research facility, a bunkhouse, and a tool shed located on top of a cliff, approximately 1,000 feet from shore. The buildings have antennas and wind turbines, and intermittent wood fencing surrounds portions of the research facility, which is otherwise surrounded by natural terrain.

Location 5 – Santa Cruz Island Scorpion Housing Area

This site is the main NPS facility on the east side of the island and includes a housing area and a nearby campground. The building has solar panels and an associated battery bank, a VSAT dish antenna, and a directional Yagi antenna. The battery bank is located inside a nearby trailer. The building cluster is located on a slope about 1,500 feet from shore and has the Santa Cruz Island Scorpion Ranch site in its viewshed.

Location 6 – Santa Cruz Island Scorpion Ranch

This site includes a cluster of buildings used as NPS ranger office space. Solar panels are mounted on a nearby hillside behind the main building. A nearby shed houses the batteries for the solar panels, as well as other equipment. The building cluster is located in a valley less than 1,000 feet from shore.

Location 7 – Santa Cruz Island Prisoners Harbor Day Use Area

This site includes a large wooden water landing deck. The deck is connected to the shore of the island, which contains a flat area with fencing, dirt roads, a small building, and some picnic tables. The onshore area is surrounded with naturally vegetated hillside.

Location 9 – Santa Cruz Island Smugglers Adobe

This site includes a large housing facility and two sheds. This site is occasionally used as a spike camp and is not regularly staffed. The facilities are located on a shallow slope approximately 1,000 feet from shore. The terrain on the backside of the site has a sharp upslope.

Location 10 – Santa Cruz Island Smugglers Kiosk

This site contains a bulletin kiosk. The site is located adjacent to the shore and is surrounded by a flat picnic area. No other significant structures are located in the area. A naturally vegetated hillside is located in the background.

Location 11 – Santa Rosa Island Main Ranch

This site includes a ranch building surrounded by wood fencing located on flat terrain less than 1,500 feet from shore with rolling hills in the background.

Location 12 – Santa Rosa Island Campground

This site includes approximately one dozen campground shelters, which are small wooden sheds that provide campers with protection from the elements. The campground is located in a small valley about 0.5 mile from shore.

Location 14 – Santa Rosa Island Maintenance Office

This site contains the maintenance facility for the island, as well as the garage for the island's fire engine and a stucco shed located near the maintenance office. The site is located more than 1 mile from shore and is surrounded by hilly terrain.

Location 15 – Santa Rosa Island Johnson's Lee

This site consists of the historical Johnson's Lee building, which has an adjacent shed, and is located about 1,000 feet from shore on a gradual slope.

Location 16 – Santa Rosa Island Housing

This site includes four buildings used for housing. The area in between the houses is landscaped with a grass lawn. The housing is located in a flat valley, approximately 1 mile inland.

Location 17 – Santa Rosa Island Power Station

This site consists of two adjacent buildings located nearly 1,500 feet from shore on relatively flat terrain. The roofs of both buildings have solar panels, and there is an additional bank of solar panels that is mounted in frames on the ground.

Location 18 – Santa Rosa Island Ranch Residence

This site includes a single-story residence with fencing enclosing a small yard area. A dish antenna for television reception is located on the front of the building. The residence is located 600 feet west of the shore on relatively flat terrain, with a row of screening trees to the immediate west. The area enclosed by the wooden rail fence is landscaped with a grass lawn.

Viewer Sensitivity

Definition

Viewer sensitivity is a measure of public concern for changes to scenic quality. Numbers of viewers, viewer activity, view duration, distance away from seen objects (foreground versus background), and adjacent landscape character are used to characterize viewer sensitivity.

Sensitive Viewers

Viewers with the highest sensitivity level in the vicinity of the proposed project sites would be visitors to the islands with foreground views of project components. Viewers with a moderate sensitivity level would be visitors to the islands with background views of project components.

Light and Glare

Light pollution is defined as any adverse effect of artificial light, including sky glow, glare, light trespass, light clutter, decreased visibility at night, and energy waste. There are few significant light sources in the immediate vicinity of the proposed project sites. Existing sources of light and glare are generally related to exterior lighting for existing buildings.

Regulatory Setting

Federal Regulations

National Park Service

NPS protects and manages scenery through the policies, regulations, and laws listed below.

Organic Act. The Organic Act of 1916 established and authorized NPS “to conserve the scenery and the national and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations” (USC 1916).

Redwoods Act. The Redwoods Act of 1978 affirmed and clarified the NPS mission and authority. It states, “The authorization of activities shall be construed, and the protection, management and administration of these areas shall be conducted in light of the high public value and integrity of the National Park system and shall not be exercised in derogation of the values and purposes for which these various areas have been established” (NPS 1978).

NPS Management Policies 2006. NPS Management Policies are a tool to help NPS employees manage parks responsibly and make rational, well-informed decisions. Concerned citizens may also refer to these policies to better understand how NPS will meet its park management responsibilities under the 1916 Organic Act. Section 4.9 of the 2006 NPS Management Policies addresses the NPS commitment to protect natural viewsheds (NPS 2006).

State and Local Regulations

There are no applicable state or local laws, ordinances, or regulations pertaining to visual or scenic resources.

Environmental Consequences

Thresholds of Significance

The project could have a significant impact on visual and scenic resources if the project would:

- Substantially and adversely affect a scenic vista
- Substantially damage scenic resources, including, but not limited to, trees, rock outcrops, and other features of the built or natural environment that contribute to a scenic public setting
- Substantially degrade the existing visual character of the site and its surroundings
- Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area or that would substantially impact other people or properties

Alternative 1 (No Project Alternative)

The No Project Alternative maintains the status quo at all 15 of the proposed telecommunication facility sites. This alternative provides a basis to compare the preferred alternative, to evaluate the magnitude of proposed changes, and to measure the environmental effects of those changes. Under this alternative, all telecommunication sites would remain in their current state, and no telecommunication infrastructure would be installed. No new impacts to visual or scenic resources would be associated with the No Project Alternative.

Alternative 2 (Preferred Alternative)

Scenic Vistas, Scenic Resources, and Visual Character

Locations 1, 9, and 17. Each of these proposed project sites currently has some type of equipment mounted on the exterior of existing buildings. The proposed project involves adding new, similar equipment at these locations with some of the equipment attached to existing buildings. The project elements would also be relatively small in size, painted to match the background terrain, and placed in visually unobtrusive locations. Therefore, the installation, operation, and maintenance of the proposed project would not substantially affect scenic vistas or visual character or substantially damage scenic resources. The proposed project would have a minimal effect on visual resources and sensitive viewers at these locations.

- CEQA: Less than significant impact.
- NEPA: Local, long-term, and minor impact.

Locations 3, 4, 5, 6, 7, 10, 11, 12, 14, 15, 16, and 18. Each of these proposed project sites has an existing structure or building located on site. The proposed project involves installing all-in-one units within new fenced enclosures (locations 3, 4, 5, 6, 7, 14, 15, and 16), inside existing buildings (location 11), or only involves the installation of a GSM payphone (locations 10, 12, and 18). The project elements would be either screened from view or (in the case of GSM payphones) relatively small in size, painted to match the background terrain, and placed in visually unobtrusive locations. The project elements, therefore, would not be visually obtrusive and would not detract from the overall scenic views. Installation, operation, and maintenance of the proposed equipment would not substantially affect scenic vistas or visual character, nor would it substantially damage scenic resources in the vicinity of the structures.

- CEQA: Less than significant impact.
- NEPA: Local, long-term, and minor impact.

Light and Glare

Installation and operation of the proposed project elements would not create substantial new light or glare that would adversely affect daytime or nighttime views at any of the proposed project sites. Project installation would only occur during daytime hours and operation would not incorporate any lighting elements. Some of the project elements are metallic and reflective; however, none of the project elements are large enough to produce substantial glare.

- CEQA: Less than significant impact.
- NEPA: Local, long-term, and minor impact.

Mitigation Measures

No mitigation measures are required for the proposed project because installation and operation of the proposed telecommunication facilities would have a less than significant impact on visual and scenic resources without the need for mitigation.

Impairment

There would be no impacts to visual or scenic resources associated with Alternative 1. Impacts to visual or scenic resources associated with the proposed project (Alternative 2) would be local, long-term, and minor; however, the long-term impacts to visual or scenic resources at the 15 proposed project sites would not impair the enjoyment of the park for future generations, and impacts would be less than significant.

Cumulative Impacts

Potential cumulative effects on visual and scenic resources are based on the analysis of projects in the Channel Islands Telecommunication Project area, presented in Appendix B. Other projects and plans proposed within the project area would be subject to evaluation of potential impacts to visual and scenic resources, and where appropriate, to the implementation of Best Management Practices and project-specific mitigation measures and adherence to management practices. The impact to visual and scenic resources from the proposed project would be at a small and localized

level. No other projects are proposed in the vicinity of the proposed project locations; therefore, there is no potential for a cumulative impact.

Conclusion Statement

Impacts to visual and scenic resources are summarized below.

- CEQA: Less than significant impact.
- NEPA: Local, long-term, and minor impact.

3.9.3 TRANSPORTATION

This section describes the existing transportation network available for transport to and from the Channel Islands National Park as well as the existing roads and modes of transportation available on the five islands that constitute the park. This section evaluates the potential impacts of implementing the proposed project on the transportation network to and on the islands.

Affected Environment

Roads and Vehicles

Access is restricted throughout all the NPS-managed lands on the Channel Islands. Visitors must access all publicly accessible areas by foot and are restricted to cleared footpaths. NPS employees and those with NPS permission may travel in NPS vehicles to other locations on the islands that are not normally accessible to the public. On-island transportation is provided by vehicles, including all-terrain vehicles (ATVs). All of the 15 proposed project locations are accessible by roads and footpaths; however, road surface conditions vary throughout the park and access to certain sites may require the use of unpaved, existing roads.

No off-road or off-trail travel is proposed as part of the project, and all vehicle travel would be on roads and trails currently designated for vehicle use. Vehicle and pedestrian routes on the islands are circuitous but are in good condition and would not be hazardous to personnel accessing project sites with project equipment.

Boat and Air Traffic

Boat access is the primary method of reaching the Channel Islands. Seasonal public transportation is available to the islands by park concessionaires, and NPS maintains its own fleet of boats that provide year-round access to the islands. Airplane transportation is also available to the public through a park concessionaire, though flights are available to Santa Rosa Island only. Private boats, airplanes, and helicopters may be chartered to visit the islands but are limited in landing times and locations by NPS regulations. Private aircraft may not land within park boundaries and must maintain a 1,000-foot minimum clearance above land and sea surfaces within the park.

Regulatory Setting

Federal Regulations

Title 36 Code of Federal Regulations

The provisions listed below apply to all lands administered by NPS within the boundaries of Channel Islands National Park, and are subject to further discretionary authority by the Superintendent of the Channel Islands National Park per 36 CFR (NPS 2007).

36 CFR §1.5 Visiting Hours, Public Use Limit, Closures, and Area Designations for Specific Use or Activities

The following uses or activities are prohibited, except as authorized by the Superintendent:

- Park roads are closed to private motor vehicle use except for the following activities:
 - Use reserved under rights of use and occupancy;
 - Use in accordance with deeded easements;
 - Use under special use permit authorizations; and
 - Use under concessions, contracts, or permits.

(The islands are inherently separate from mainland vehicle traffic. Closure to private vehicle use preserves the character of the islands. The administrative vehicle traffic permitted on the islands is the minimum traffic necessary for management of the islands. Additionally, the island road systems are not engineered to be safely navigated by those without local knowledge of the islands.)

- Park roads are closed to bicycle use.

(Closure to bicycles is similar to the rationale for closure to motor vehicles. Additionally, park roads are not designed or maintained with bicycle use in mind. The roads are for administrative use only, and many roads are being phased out by NPS.)

36 CFR §4.10 Travel of Park Roads and Designated Routes

Operating a motor vehicle is prohibited except on park roads, in parking areas, and on routes and areas designated for off-road motor vehicle use.

36 CFR §4.20 Right of Way

An operator of a motor vehicle shall yield the right of way to pedestrians, saddle and pack animals, and vehicles drawn by animals. Failure to yield the right of way is prohibited.

36 CFR §4.21 Speed Limits

- a. Park area speed limits are as follows:
 - (1) 15 miles per hour within all school zones, campgrounds, picnic areas, parking areas, utility areas, business or residential areas, other places of public assemblage, and at emergency scenes
 - (2) 25 miles per hour on sections of park road under repair or construction
 - (3) 45 miles per hour on all other park roads

36 CFR §4.30 Bicycles

- a. Park roads and parking areas are closed to bicycle use. No routes have been established for bicycle use because the park is closed to bicycles.

36 CFR §5.6(c) Activities that Require a Permit

Use of commercial vehicles on park area roads (the Superintendent shall issue a permit to access private lands within or adjacent to the park when access is otherwise not available).

State and Local Regulations

Unless specifically addressed within NPS regulations, traffic and vehicle use within a park area is governed by state law. There are no applicable state or local laws, ordinances, or regulations pertaining to traffic and transportation.

Environmental Consequences***Thresholds of Significance***

The project could have a significant impact on traffic and transportation if the project would:

- Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit
- Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location in traffic levels or substantial safety risks
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
- Result in inadequate emergency access
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities

Alternative 1 (No Project Alternative)

The No Project Alternative maintains the status quo at all 15 of the proposed telecommunication facility sites. This alternative provides a basis to compare the preferred alternative, to evaluate the magnitude of proposed changes, and to measure the environmental effects of those changes. Under this alternative, all telecommunication sites would remain in their current state, and no telecommunication infrastructure would be installed. No new impacts to traffic or transportation would be associated with the No Project Alternative.

Alternative 2 (Preferred Alternative)

The number of vehicles present on the Channel Islands is limited and vehicles are restricted to NPS personnel. There is no level of service (LOS) standard for any of the roads in the Channel Islands National Park. The project would not remove or impair current parking availability on the islands, nor create any additional demand for parking; therefore, parking capacity is not discussed further in this document.

Traffic Load

Roadways on the Channel Islands have not been rated with LOS designations because they are not open for public use. If such designations were in place, the project would not exceed an LOS standard because no additional vehicles would be introduced to the islands and the increase in traffic trips resulting from project installation would be minimal (i.e., less than ten vehicle trips per project site).

The proposed project would not disrupt the current traffic flow because vehicle trips on the islands are limited to a small group of park personnel and researchers. Vehicle transportation from the boat landing sites to individual installation sites on the islands would be provided by NPS personnel during scheduled visits to the island. No additional ground vehicles would be brought to the islands as part of the project, and no additional traffic or congestion would result from the project. The number of vehicle trips may increase to carry supplies and workers to the proposed project sites, but this increase would be temporary because installation would be completed within 2 to 2.5 days at each site.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

Air Traffic

The proposed telecommunication equipment would not be tall enough to obstruct air traffic or disturb air traffic patterns. Private aircraft is limited to a minimum of 1,000 feet of clearance above land and sea surfaces within the park. This minimum clearance would prevent potential hazards related to the proposed helicopter flights for the project. Park concessionaire helicopter flights could be chartered to bring supplies and personnel from either the mainland or boat landing sites on the islands to the installation sites when transport via NPS vehicles is not available or capable of carrying the telecommunication equipment. The increase in helicopter flights would be negligible (i.e., less than 20) in proportion to the overall number of chartered flights per year.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

Boat Traffic

The applicant intends to shuttle materials from the mainland to the islands using regularly scheduled park concessionaire or NPS-approved private charter boat trips whenever possible. Normally scheduled NPS boats may be used in the event concessionaire or NPS-approved private charter boats are not running at desired dates or times, are unavailable, or additional trips are needed in excess of scheduled boat trips. The applicant would use a park concessionaire helicopter

service, as described above, only if concessionaire boats, NPS boats, and private charter boats are not available. NPS concessionaires, as well as private charter companies, run trips to some of the islands almost daily, depending on weather conditions. Boat trips from private concessionaires to other islands in the park are available on a seasonal basis, and can also be chartered for non-regularly scheduled trips. The additional boat trips that may be required for the project is unknown at this time, but the additional boat traffic generated by the project would likely be negligible.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

Traffic Hazards

No existing traffic hazards have been identified at any of the proposed project sites or along routes to the project sites. Roads may be unpaved at some locations, but all routes are in good condition and are capable of supporting the delivery of materials and equipment in standard NPS vehicles. Collisions with wildlife may be the largest hazard to traffic at proposed project sites; however, collisions would be sufficiently rare.

- CEQA: Less than significant impact.
- NEPA: Local, short-term, and minor impact.

Emergency Response

Emergency response on the islands is limited to NPS park rangers, who are the first level of law enforcement and emergency response. Emergency evacuation to mainland medical facilities can be provided by the U.S. Coast Guard or the Ventura County Sheriff's Office via helicopter (Anacapa and Santa Cruz Islands only). On-site care is available for minor injuries at each ranger station. Due to the remote nature of the islands, emergency response times are slow compared to the mainland. The project would not impede or negatively alter the current response time to emergencies in the park. Rangers would still be available to respond to all potential emergencies. Implementation of the project would provide more reliable communication services in response to emergencies among the islands, as well as between the islands and the mainland, which would be a benefit to emergency response.

The U.S. Coast Guard enforces regulations related to vessel safety and ocean dumping, oversees oil spill cleanups, and provides emergency services to boaters. The additional boat traffic resulting from the proposed project would not impact U.S. Coast Guard emergency response times.

Impacts from the project to emergency response would not be adverse.

- CEQA: Less than significant impact.
- NEPA: Local, long-term, and beneficial impact.

Alternative Transportation

NPS regulations currently prohibit the use of alternative transportation such as bicycles or buses within the park. Transportation is limited to walking for all visitors, and NPS personnel transportation is limited to vehicles, including ATVs. No impacts to alternative transportation

would occur from the proposed project, nor would the project limit alternative modes of transportation, should they be allowed in the future.

- CEQA: No impact.
- NEPA: No impact.

Mitigation Measures

The proposed project does not require implementation of mitigation measures for traffic or transportation impacts.

Impairment

There would be no transportation impacts associated with Alternative 1. Impacts to traffic associated with the proposed project (Alternative 2) would be local, short-term, and minor; however, the short-term traffic impacts at the 15 proposed project sites would not impair the enjoyment of the park for future generations, and impacts would be less than significant.

Cumulative Impacts

Potential cumulative impacts on traffic and transportation are based on the analysis of projects in the Channel Islands Telecommunication Project area, presented in Appendix B. Other projects and plans proposed within the project area would be subject to evaluation of potential impacts to traffic, and where appropriate, to the implementation of Best Management Practices and project-specific mitigation measures and adherence to management practices. Traffic impacts from the proposed project would be at a small and localized. No other projects are proposed in the vicinity of the proposed project sites; therefore, there is no potential for a cumulative impact.

Conclusion Statement

Impacts to traffic and transportation are summarized below.

- CEQA: Less than significant impact.
- NEPA: Local, short term, and minor impact.

3.10 CEQA-Specific Topics

This section describes the impact categories that are unique to CEQA and that are not covered under NEPA; therefore, a NEPA analysis, including project alternatives, and impairment, was not included in these impact categories. The analysis of CEQA-specific issues addresses public services, utilities, and service systems; and hazards and hazardous materials.

3.10.1 PUBLIC SERVICES, UTILITIES, AND SERVICE SYSTEMS

This section describes the existing public services, utilities, and service systems at each of the proposed project locations on the Channel Islands National Park and evaluates the potential impacts on these services from the proposed project.

Affected Environment

Availability to public services, utilities, and service systems is limited on the Channel Islands. The only government facilities located on the public portions of the islands are NOAA and NPS ranger stations and related facilities. There are no schools, hospitals, parks (other than NPS lands), or other public services located on the islands.

Police and Medical Services

NPS rangers are the primary providers of emergency services on the Channel Islands. Anacapa Island is within the Ventura County Sheriff's jurisdiction, and the other four islands are within the Santa Barbara County Sheriff's jurisdiction. In the event of an emergency, NPS rangers would provide the first level of enforcement and emergency response. If additional assistance is required, the Santa Barbara County and Ventura County Sheriffs' helicopter response teams would provide further support. Additional emergency response services include the U.S. Coast Guard, which would provide basic life support services, and Mercy Air. Mercy Air is a commercial air ambulance service that would provide advanced life support services; however, its closest bases are located in Anaheim and Apple Valley, California, which results in a longer response time than the other services mentioned.

Fire Response Services

Channel Islands National Park has an interagency agreement with the U.S. Forest Service (USFS). In the event of a fire emergency, the Channel Islands Dispatch Center (located in Ventura, California) or an on-duty NPS ranger would report an incident to the USFS Los Padres Emergency Operations Center located in Goleta, California. The park contributes funds to support the USFS's helitack² crew; in exchange, the park receives service to the islands.

Water Resources

The water supply for Santa Cruz, Santa Rosa, and San Miguel Islands is pumped from groundwater aquifers (NRCS 2007). There are no aquifers on Santa Barbara Island (NPS 1985). As a result, the water supply for Santa Barbara Island must be shipped periodically from the mainland.

Santa Barbara Island receives approximately 1,600 gallons of water per delivery. Deliveries occur once or twice a month via regularly scheduled NPS boat trips. The water is delivered in up to four Liquitotes³, each containing approximately 400 gallons of water, which are lifted by a crane from the boat onto the landing located on the northeast side of the island. The water is then pumped into a 10,000-gallon water storage tank using a fire pump and the empty Liquitotes are sent back to the mainland on the NPS boat.

² The helitack crew uses helicopters to rapidly transport personnel and cargo to a fire and then remains on scene to perform a variety of tactical and logistical missions (USFS 2007).

³ A bulk storage container designed specifically to store liquid.

Wastewater Management

There are no wastewater treatment or stormwater drainage facilities located on the islands. The NPS ranger stations and housing facilities use septic systems to process black and gray water, and the NPS campgrounds are equipped with vaulted toilets. The vaulted toilets are periodically pumped and the effluent is deposited into the septic systems. Stormwater drains through natural surface flow.

Waste Management

There are no solid waste landfills located on the islands. All created waste is recycled when appropriate, or transported off the islands and disposed of at a designated mainland waste disposal site.

Electricity

NPS administration of the Channel Islands emphasizes energy conservation. All NPS facilities on the islands are completely self-sufficient for electricity through the use of solar and wind energy.

Regulatory Setting

Federal Regulations

NPS Management Policies 2006

NPS Management Policies are a tool to help NPS employees manage parks responsibly and make rational, well-informed decisions. Concerned citizens may also refer to these policies to better understand how NPS will meet its park management responsibilities under the 1916 Organic Act. Sections 9.1.5 and 9.1.6 of the 2006 NPS Management Policies address utilities and waste management, respectively (NPS 2006).

State and Local Regulations

There are no applicable state or local laws, ordinances, or regulations pertaining to public services, utilities, or service systems.

Environmental Consequences

Thresholds of Significance

The project could have a significant impact on public services, utilities, and service systems if the project would:

- Result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental facilities, the construction of which would cause significant environmental impacts to maintain acceptable service ratios, response times, or other performance objectives for any public services such as fire protection, police protection, schools, parks, or other services
- Exceed wastewater treatment requirements of the applicable RWQCB
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects

- Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which would cause significant environmental effects
- Have insufficient water supply available to serve the project from existing entitlements and resources, or require new or expanded water supply resources or entitlements
- Result in a determination by the wastewater treatment provider that would serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments
- Have insufficient permitted landfill capacity to accommodate the project's solid waste disposal needs
- Not comply with federal, state, and local statutes and regulations related to solid waste

Public Services

Installation, operation, and maintenance of the proposed project sites would not generate a need for new or physically altered governmental facilities. The proposed project would negligibly increase the risk of a fire, police, or medical emergency at the project sites during installation. The proposed project would have a beneficial impact to public services during the operational phase of the project because telecommunication to the mainland would be more reliable. The proposed project would not generate the need for new or expanded park area, schools, or other services.

- CEQA: Less than significant impact.

Utilities and Service Systems

The presence of two workers at each site for no more than 2.5 days per site would generate negligible impacts to wastewater facilities during project installation. Operation of the proposed project would not result in the generation of additional wastewater except for a minimal amount that would be generated during periodic maintenance activities.

Installation, operation, and maintenance of the proposed project would not create a demand on water supply because installation and maintenance workers would travel to the project areas with their own water supply for personal consumption.

Installation, operation, and maintenance would have no impact on stormwater drainage facilities because such facilities do not currently exist on the islands.

The installation, operation, and maintenance of the proposed sites would not generate a significant need for solid waste disposal. The telecommunication equipment to be replaced and any other waste materials generated by installation and maintenance activities would be removed from the islands and disposed of on the mainland. All materials would be disposed of by the contractor in compliance with federal, state, and local regulations related to solid waste and, therefore, would have no impact on recycling and solid waste disposal activities on the islands. The amount of solid waste to be disposed of on the mainland would be negligible.

- CEQA: Less than significant impact.

Mitigation Measures

No mitigation measures are required for the proposed project because installation, operation, and maintenance of the proposed telecommunication facilities would have a less than significant impact on public services, utilities, and service systems without the need for mitigation.

Cumulative Impacts

Potential cumulative effects to public services, utilities, and service systems are based on the analysis of projects in the Channel Islands Telecommunication Project area, presented in Appendix B. Other projects and plans proposed within the project area would be subject to evaluation of potential impacts to public services, utilities, and service systems, and where appropriate, to the implementation of Best Management Practices and project-specific mitigation measures and adherence to management practices. Impacts to public services, utilities, and service systems from the proposed project would be at a small and localized level. No other projects are proposed in the vicinity of the proposed project sites; therefore, there is no potential for a cumulative impact.

Conclusion Statement

Impacts on public services, utilities, and service systems are summarized below.

- CEQA: Less than significant impact.

3.10.2 HAZARDS AND HAZARDOUS MATERIALS

This section describes the existing hazards found at each of the proposed project locations on the Channel Islands National Park and evaluates the potential impacts from the proposed project. The analysis focuses on hazardous impacts from installation activities.

Affected Environment

Hazardous Spills

The Department of Toxic Substances Control (DTSC) is required under California Government Code Section 65962.5(a) to list:

- All hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code;
- All land designated as hazardous waste property or border zone property pursuant to Article 11 (commencing with Section 25220) of Section 6.5 of Division 20 of the Health and Safety Code;
- All information received by the DTSC on hazardous waste disposal on public land pursuant to Section 25242 of the Health and Safety Code;
- All sites listed pursuant to Section 25356 of the Health and Safety Code; and
- All sites included in the Abandoned Site Assessment Program.

None of the 15 proposed project sites have been listed as hazardous material sites compiled pursuant to Government Code Section 65962.5(a) (DTSC 2009).

Fire Hazards

Virtually all fires on the Channel Islands are caused by human activities. Fire records show that there are a variety of causes, including mechanical and electrical equipment malfunction, campfires, plane crashes, flares, fireworks, and arson. Seasonal variation in temperature and rainfall can determine the speed and intensity of fires. The warm and dry season extends from May to October. Humidity averages 60 percent but is often 100 percent during the night and early morning year-round. The climate keeps most fires on the islands small.

Los Padres National Forest generates a daily fire danger rating that is used by Channel Islands rangers to alert people on the islands to daily fire risk. The ratings range from Low to Extreme and can be obtained by phone or internet (NPS 2006).

Airports and Airstrips

There are several airstrips located on San Miguel, Santa Rosa, and Santa Cruz Islands (see Figures 3.10-1 to 3.10-3). Most of these airstrips are unpaved and are only suitable for small aircraft. Because of the unique nature of these airstrips and the NPS regulations regarding aviation in and around the Channel Islands, only aircraft with permission from NPS can land on airstrips located on NPS-administered land.

The 15 proposed project sites are not located within an airport land use plan area. The various airstrips on the islands and their distance to the closest project locations are listed below.

San Miguel Island Lakebed Airstrip

This airstrip is located on NPS-administered land approximately 1.5 miles northeast of location 4 (see Figure 3.10-1).

San Miguel Island Ranch Airstrip

This airstrip is located on NPS-administered land less than 0.5 mile west of location 3 (see Figure 3.10-1).

Santa Rosa Island Airstrip

This airstrip is located on NPS-administered land within 2 miles east-southeast of locations 11, 12, 14, 16, 17, and 18 (see Figure 3.10-2).

Santa Cruz Island Main Ranch Airstrip

This airstrip is located on The Nature Conservancy-administered land approximately 2 miles south and southwest, respectively, of location 7 (see Figure 3.10-3).

Santa Cruz Island Christy Ranch Airstrip

This airstrip is located on The Nature Conservancy-administered land. The airstrip is located nearly 10 miles west from the closest proposed project site, which is location 7 (see Figure 3.10-3).

Schools

The proposed project sites are located on rural islands that do not contain an existing or proposed school. The closest school to the project sites is located on the mainland in Ventura County approximately 15 miles east of Anacapa Island, which contains the closest project site to the mainland.

Regulatory Setting

Federal Regulations

U.S. Environmental Protection Agency

EPA's mission is to protect human health and to safeguard the natural environment. The authority for many of the laws that EPA enforces is delegated in California to the RWQCBs and DTSC. However, EPA remains the lead on sites that are included on the National Priorities List.

Resource Conservation and Recovery Act (RCRA)

RCRA regulates hazardous waste from the time that the waste is generated through its management, storage, transport, and treatment, until its final disposal. EPA has authorized DTSC to administer the RCRA program in California.

National Park Service

All NPS park units with burnable vegetation were required by the 2001 Federal Wildland Fire Management Policy Director's Order 18 to complete or update a Fire Management Plan (NPS 2006). The Channel Islands National Park adopted a Fire Management Plan in 2006. The Fire Management Plan provides leadership, direction, coordination, and support for park fire, aviation, and incident management.

Figure 3.10-1: San Miguel Island Airstrips



SOURCE: ESRI 2012, U.S. Geological Survey, EROS Data Center, Sioux Falls, SD 2009 and Panorama Environmental, Inc. 2012

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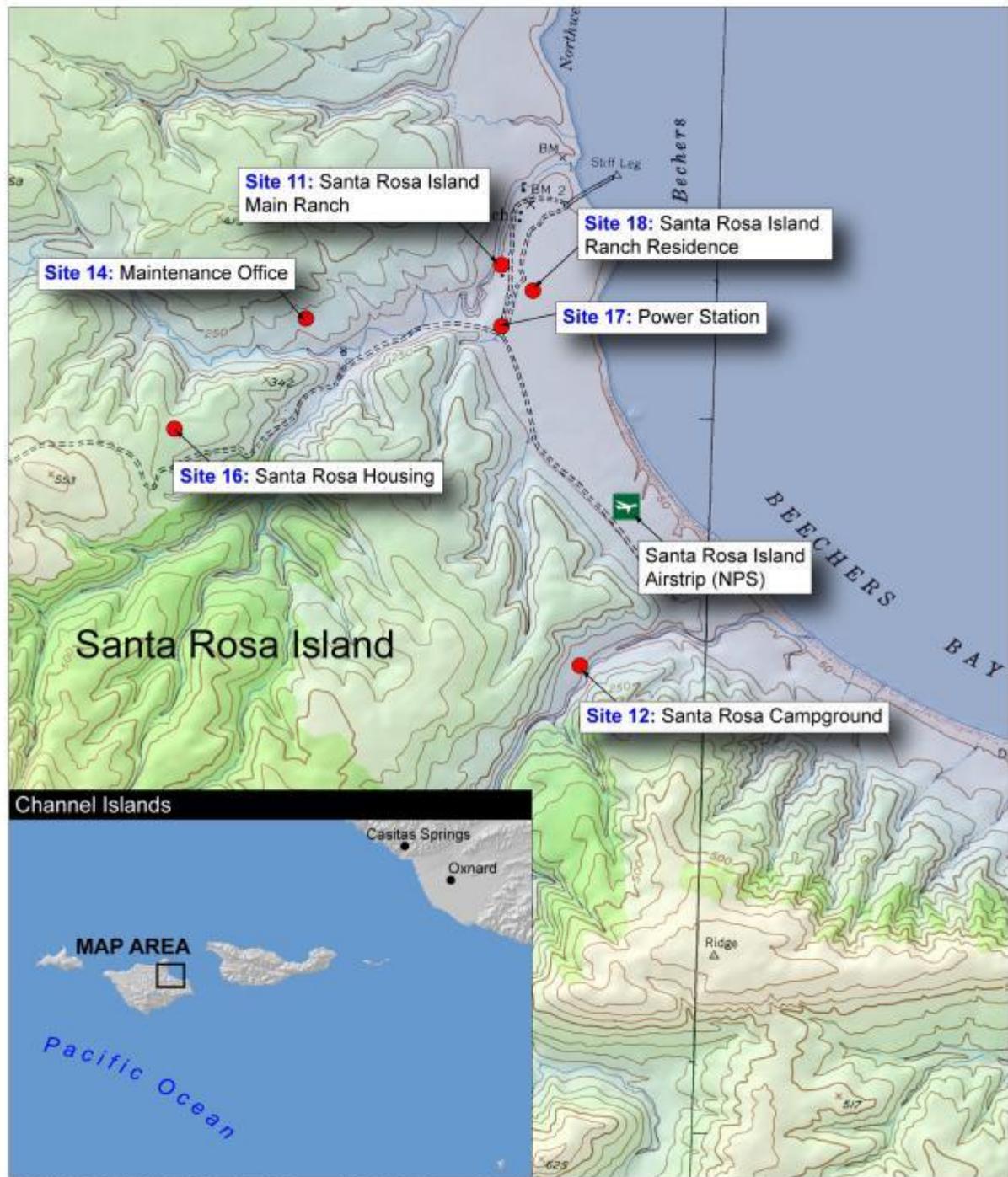
- Proposed Site Location
- ✈ Airstrip



0 0.25 0.5 1 1.5 2 Miles

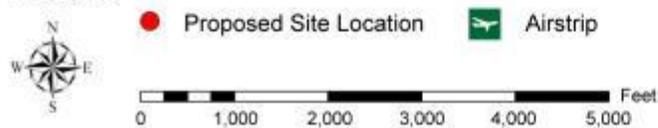
PANORAMA
ENVIRONMENTAL, INC.

Figure 3.10-2: Santa Rosa Island Airstrip



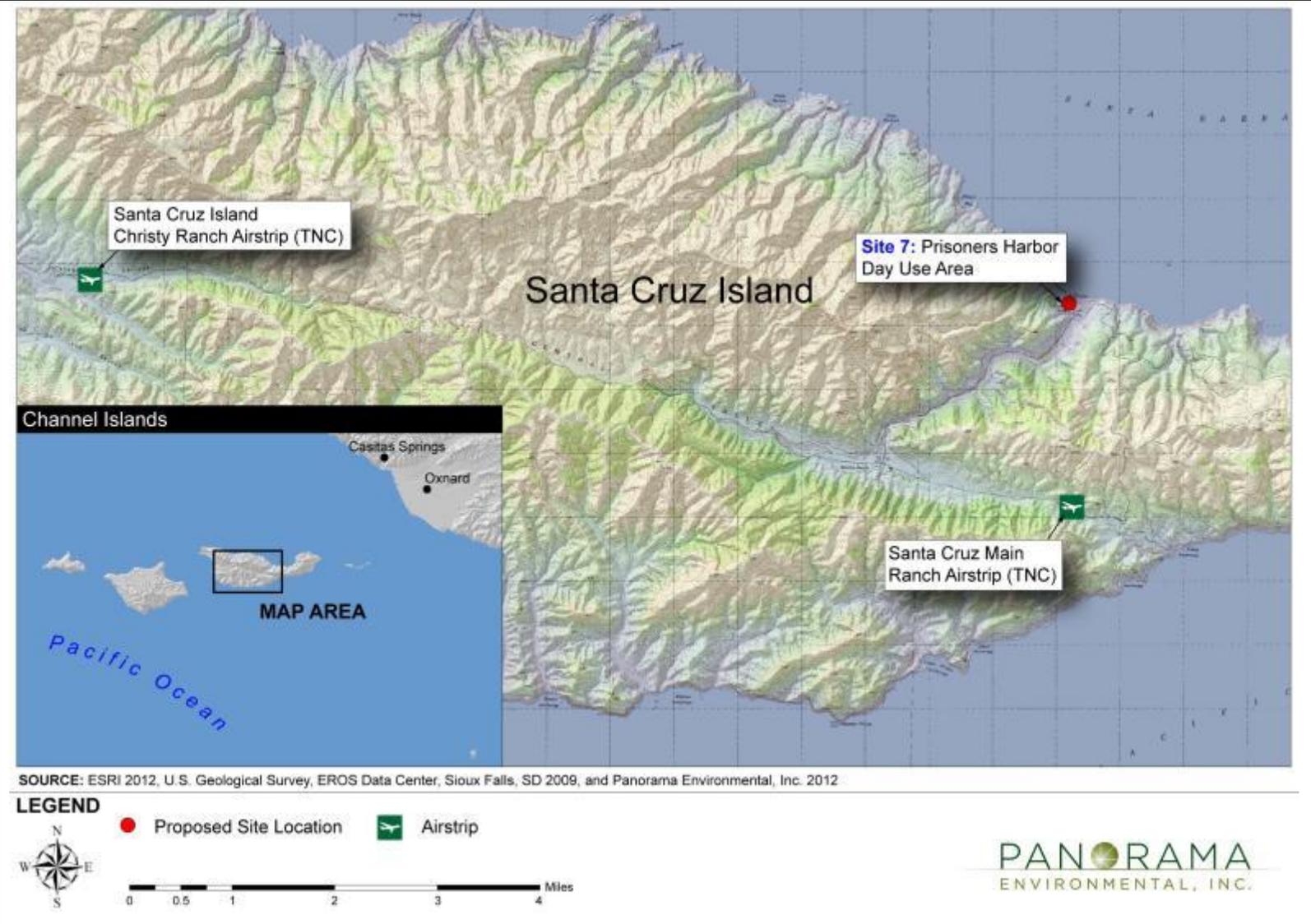
SOURCE: ESRI 2012, U.S. Geological Survey, EROS Data Center, Sioux Falls, SD 2009, and Panorama Environmental, Inc. 2012

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Figure 3.10-3: Santa Cruz Island Airstrips



State Regulations

California Health and Safety Code

California law defines a hazardous material as any material that, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may pose a present or potential hazard to human health and safety or to the environment if released (California Health and Safety Code Section 25501). A hazardous waste is defined as a discarded material of any form (i.e., solid, liquid, or gas) that may pose a present or potential hazard to human health and safety or to the environment when improperly treated, stored, transported, or disposed of, or otherwise managed (California Health and Safety Code Section 25117).

California's RCRA hazardous waste program is more stringent than the federal program. Certain wastes that would not qualify as hazardous based on federal standards may qualify as hazardous according to California standards (termed non-RCRA hazardous waste). Handling and storage of fuels, flammable materials, and common construction-related hazardous materials are governed by California Occupational Safety and Health Administration (Cal/OSHA) standards for storage and fire protection.

California Hazardous Waste Control Act

California's hazardous waste program is in some cases more stringent than the federal program. Certain wastes that would not qualify as hazardous based on federal standards may qualify as hazardous according to California standards. Handling and storage of fuels, flammable materials, and common construction-related hazardous materials are governed by California Occupational Safety and Health Association standards for storage and fire protection.

Local Regulations

There are no applicable local laws, standards, or regulations relating to hazards and hazardous materials for the proposed project.

Environmental Consequences

Thresholds of Significance

The project could have a significant impact on hazards and hazardous materials if the project would:

- Create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment
- Produce hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school
- Be located on a site included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5(a) and, as a result, create a significant hazard to the public or the environment

- For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area
- For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan
- Expose people or structures to a significant risk of loss, injury, or death involving fires

Hazardous Materials

Installation. The proposed project would not create a significant hazard through the routine transport, use, or disposal of hazardous materials, or through a reasonably foreseeable accident involving the release of hazardous materials. Installation of the proposed telecommunication infrastructure would not include the use of equipment that contains hazardous materials because infrastructure installation would only require use of a ladder and hand tools, including battery-operated power tools.

Any existing infrastructure that might be replaced would not contain hazardous materials, with the exception of the old battery banks. The batteries and other solid wastes would be removed from the project sites and placed in sealable containers for transport off the islands. The old batteries would be recycled and disposed of in accordance with local regulations. Impacts from the routine transport, use, or disposal of hazardous materials, or through a reasonably foreseeable accident involving the release of hazardous materials during installation activities, would be less than significant.

- CEQA: Less than significant impact.

Operation and Maintenance. Operation of the proposed project does not involve the use or storage of hazardous materials, with the exception of the new battery banks. The battery banks would not routinely release any hazardous materials, and would undergo regular inspection and maintenance. The battery banks would be placed in a non-permeable shallow tub to prevent the spread of any hazardous materials in the event of an accidental leak. Impacts from the routine transport, use, or disposal of hazardous materials, or through a reasonably foreseeable accident involving the release of hazardous materials during operation and maintenance activities, would be less than significant.

There are no schools or sites included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5(a) located on any of the five islands. The proposed project would therefore not be located within 0.25 mile of any such facilities, and no impacts would occur.

- CEQA: Less than significant impact.

Emergency Response

Installation of the proposed telecommunication facilities would not significantly impair implementation of any emergency response plan or emergency evacuation plan. The operation of the proposed project would, however, have a beneficial impact on emergency response and

emergency evacuation plans because it would provide more accurate and improved communication among the islands and between the islands and the mainland. Section 3.10.1: Public Service, Utilities, and Service Systems, provides further discussion on impacts to public services. The project would have a less than significant impact on emergency response.

- CEQA: Less than significant impact.

Airports and Airstrips

The 15 proposed project sites are not located within an airport land use plan area or within 2 miles of a public airport or public use airport, as no public airports are located on the five islands. Some of the project sites are located within 2 miles of non-public NPS-regulated airstrips, which are used only under NPS or The Nature Conservancy approval. The proposed telecommunication infrastructure would increase the overall height of existing structures by no more than 10 feet, which would have a negligible impact to safety for the nearby airstrips. Impacts from project installation, operation, and maintenance would be less than significant and mitigation would not be required.

- CEQA: Less than significant impact.

Wildfires

The project would involve placing telecommunication infrastructure on existing buildings and structures that are surrounded by natural or landscaped vegetated areas. Project installation, operation, and maintenance would be unlikely to result in a wildland fire that would spread to surrounding areas. The proposed facilities would not involve the use of fire or materials likely to result in combustion and, therefore, would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. The implementation procedures established in the Fire Management Plan for Channel Islands National Park would reduce fire-related hazards to less than significant levels.

- CEQA: Less than significant impact.

Mitigation Measures

No mitigation measures are required for the proposed project because installation and operation of the proposed telecommunication facilities would have a less than significant impact from hazards and hazardous materials without the need for mitigation.

Cumulative Impacts

Potential cumulative effects from hazards and hazardous materials are based on the analysis of projects in the Channel Islands Telecommunication Project area, presented in Appendix B. Other projects and plans proposed within the project area would be subject to evaluation of potential impacts from hazards and hazardous materials, and where appropriate, to the implementation of Best Management Practices and project-specific mitigation measures and adherence to management practices. Impacts from hazards and hazardous materials from the proposed project would be at a small and localized level. No other projects are proposed in the vicinity of the proposed project sites; therefore, there is no potential for a cumulative impact.

Conclusion Statement

Impacts from hazards and hazardous materials are summarized below.

- CEQA: Less than significant impact.

3.11 Mandatory Finding of Significance

CEQA requires that a finding of significance be made regarding the potential environmental impacts of a project. The three findings are listed below, along with a discussion of how this project relates to those findings.

1) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

The project would not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, or eliminate important examples of the major periods of California history or prehistory. Potential impacts to hydrology, biological resources, and cultural resources associated with this project would be less than significant with the implementation of the mitigation measures identified in Sections 3.7 and 3.8.

2) Would the project result in impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

A list of potential projects in the Channel Islands Telecommunication Project area is presented in Appendix B. No other projects are proposed in the vicinity of the proposed project sites. All potential projects would be subject to evaluation of potential impacts and, where appropriate, to the implementation of Best Management Practices and project-specific mitigation measures and adherence to management practices. Therefore, there is no potential for a cumulative impact to result from the proposed project.

3) Would the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

The project would not adversely affect human beings directly or indirectly. The project would have a beneficial effect on NPS employees, researchers, and island visitors in the area by providing improved telecommunication services.

3.12 Growth-inducing Impacts

Section 15126.2(d) of the CEQA Guidelines requires consideration of the growth-inducing impacts of a proposed project. Section 15126.2(d) states that the environmental document should:

- Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects that would remove obstacles to population growth.

The Channel Islands National Park is managed as an ecological preserve and research facility, with recreational opportunities for visitors to the islands. The number of NPS staff residents on the islands is unlikely to be allowed to increase due to the sensitive biology and habitats on the islands. The improved telecommunication facilities provided by the proposed project would, therefore, not directly or indirectly induce economic or population growth.

3.13 Irreversible and Unavoidable Impacts

Section 15126.2(b) of the CEQA Guidelines requires preparers of an environmental document to identify significant environmental effects that cannot be avoided if a proposed project is implemented. Section 15126.2(b) states that the environmental document should:

- Describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance.

All potential significant impacts associated with the proposed project are identified in Section 3: Affected Environment and Environmental Consequences. No significant impacts have been identified that cannot be avoided or mitigated to levels below significance. Mitigation measures proposed for this project would minimize all potential impacts to a less than significant level.

Section 15126.2(c) of the CEQA Guidelines states that significant irreversible environmental changes involved with a proposed project may include the following:

- Uses of non-renewable resources during the initial and continued phases of the project that would be irreversible because a large commitment of such resources makes removal or nonuse thereafter unlikely;
- Primary impacts and, particularly, secondary impacts that commit future generations to similar uses; and
- Irreversible damage, which may result from environmental accidents, associated with the project.

The installation of the telecommunication infrastructure would involve the use of metals, glass, and electronics that would be unlikely to be reused in the future. The quantity of such materials involved with this project is low, however, and thus would not be considered a significant commitment of resources.

The proposed project would improve telecommunication services at the Channel Islands National Park. The improved telecommunication services would not result in increased growth or development at the Channel Islands National Park.

The proposed project could result in environmental accidents (e.g., rupture of one of the batteries for the solar panels) that have the potential to create irreversible impacts to biological and other natural resources. Potential impacts can be reduced through use of adequate design and operating procedures and effective emergency response plans specifying staffing and equipment needs. However, the potential remains for irreversible damage as a result of an unlikely upset associated with the operation of the proposed project.

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